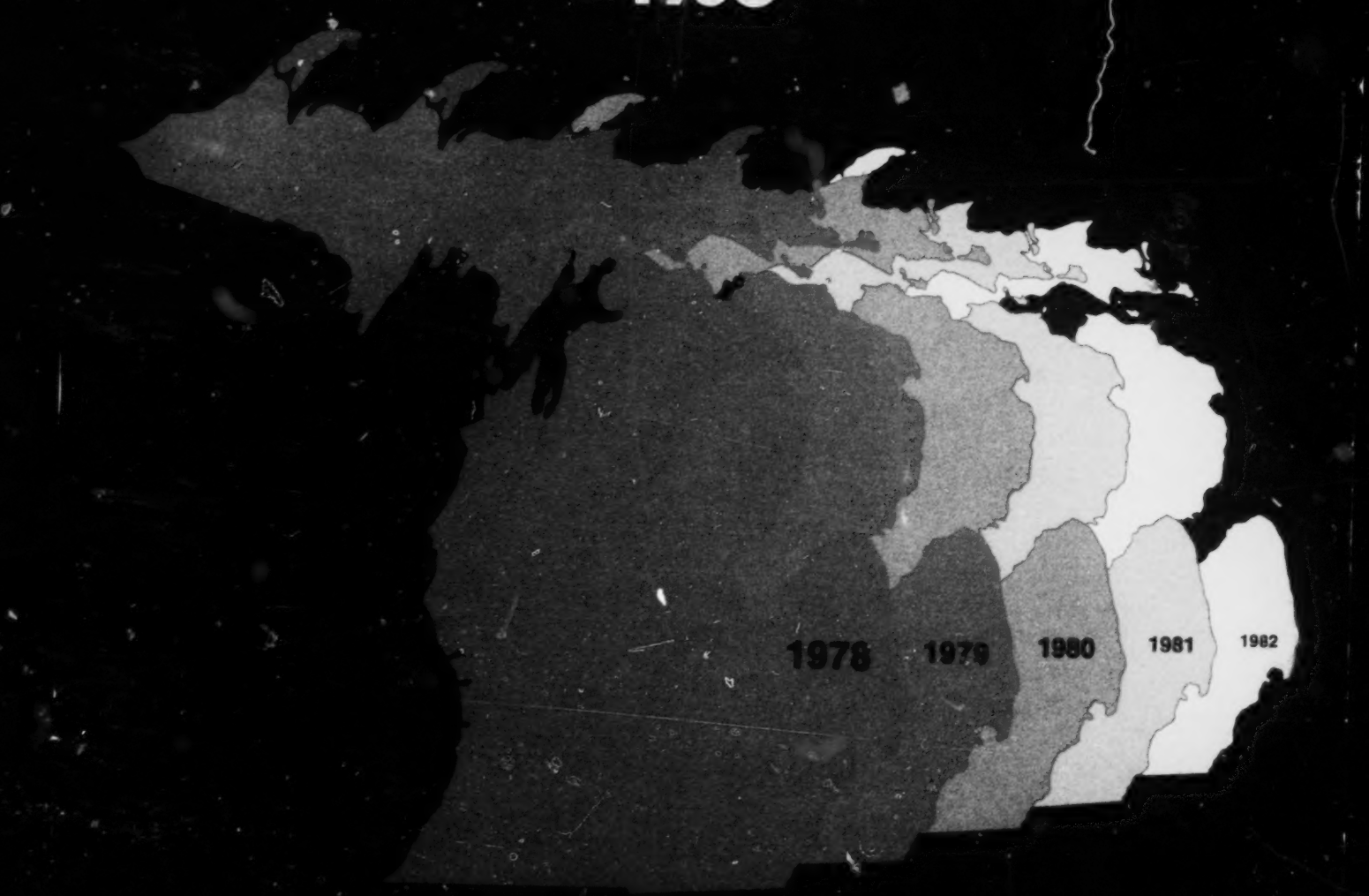
THE ANNUAL AND LONG RANGE STATE PLAN FOR VOCATIONAL EDUCATION IN MICHIGAN 1980



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THE ANNUAL AND LONG RANGE STATE PLAN

FOR VOCATIONAL EDUCATION

IN MICHIGAN

1980

Vocational-Technical Education Service
Michigan Department of Education

Part I — Administrative Provisions
of
Michigan Annual and Long Range State Plan
for Vocational Education
Under the Vocational Education Amendments of 1976
for Approval by U.S. Commissioner of Education

Effective October 1, 1977

PREFACE

The Vocational Education Amendments of 1976 supplement and amend previous Federal vocational legislation. The Amendments require the annual revision of five-year State Plan and an Annual Plan and Accountability Report which provide the direction needed for occupational education change, emphasis, and evaluation. To comply with the provisions of these Amendments and to better serve the occupational needs of the people of Michigan, the State Department of Education, in consultation with the State Advisory Council for Vocational Education and the State Manpower Services Council has conducted public meetings and hearings to get local input and has prepared the State Plan which follows.

PART I
ADMINISTRATIVE PROVISIONS

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INTRODUCTION — PART 1

On October 12, 1976, Public Law 94-482 became the official enactment describing legal parameters and mandates under which vocational education will function in the United States. This statute reemphasizes the need for establishing long-term goals and objectives for planning as well as an annual process of planning and accounting for vocational education delivery. It is within this context that the 1977-78 State Plan for Vocational Education in the State of Michigan is constituted.

The delivery system of Vocational-Technical Education in Michigan will be developed around a major mission and four complementary goals.

Mission: Persons of all ages in all Michigan communities will have ready access to high quality vocational and technical education which is realistic in the light of actual or anticipated opportunities for gainful employment and consistent with their needs, interests and abilities.

Goal I: Persons with differing sex, age, racial/ethnic background, soci-economic status, academic disadvantage, economic disadvantage, limited English speaking ability, physical and mental capabilities, and geographical location will have access to vocational-technical education and training or retraining and shall not be excluded from such programs because of any distinguishable personal characteristics.

Goal II: All local vocational-technical education programs will be of such quality as to assure that all students are provided learning experiences which are realistic and sufficient in light of their occupational objective.

Goal III: All pre-vocational/exploration, career guidance and placement programs will be coordinated with local vocational-technical education programs so that each student may make an informed and realistic occupational choice and have access to quality placement programs.

Goal IV: All local vocational-technical education programs will be planned, monitored, and evaluated in light of actual or anticipated employment opportunities and the demand by students for programs related to their abilities and occupational objectives.

In pursuit of these goals, and the desire to improve a planned delivery of vocational education, users of this plan are hereby informed that throughout the document wherever nouns such as person, individual, student, child, youth, adult and the like are used, equal consideration of both sexes is implied. The contents of this Plan are also construed to mean that all programs and projects are to meet provisions of Title IX of the Education Amendments of 1972 which specifically addresses elimination of sexual discrimination in vocational education.

ROLES OF MICHIGAN EDUCATIONAL AGENCIES AND INSTITUTIONS

The Legislature and the State Board of Education have established the roles of each type of Michigan educational agency or institution as they relate to the provision of vocational and technical education. The following statements summarize these roles as established by State Laws and policies and form the basis for the delivery of the vocational-technical education program set forth in this Plan.

1. **The K-12 District.** Each K-12 school district should provide elementary and junior high school students with an opportunity to acquire positive attitudes toward work and an awareness of the world of work. These basic understandings should be integrated into the total school program by relating the student's basic education to the world of work. Some schools might elect to offer broad occupational exploratory programs at the junior high school level designed to further develop student interests and would encourage and assist teachers and counselors to help in identifying each student's interest and abilities prior to his or her high school entrance.

   All K-12 districts should attempt to provide exploratory, prevocational and career guidance programs at the junior high and early senior high school levels. These experiences should be available to all students, and should include a majority of both professional and nonprofessional occupational areas.

   Generally vocational programs are offered at the later senior high school years (grades 11-12). Each K-12 district should offer all vocational programs for which it has sufficient resources and interested students. Such programs should be developed or continued in light of actual or anticipated opportunities for employment of completers and leavers.

   Every K-12 district should provide guidance and counseling for students at all levels to assist each to identify

individual interests and aptitudes. The effectiveness of vocational education is dependent upon quality guidance and couseling services.

2. **The Intermediate School District.** Intermediate Districts should assist in any cooperative activity designed to facilitate and improve vocational and technical education. These cooperative activities may include the provision of professional development services and leadership for vocational education planning and coordination.

   Where a secondary area vocational education program is desirable, the intermediate school district can serve as the financial and coordinating agency for its development and operation. The intermediate school district may elect to contract with one or more constituent districts or a community college to operate the program, or could own vocational education facilities and operate the program itself.

3. **The Secondary Area Vocational Education Center.** The secondary area vocational education center serves to expand vocational education opportunities for students from participating K-12 districts. Programs which cannot be provided by each individual district for lack of sufficient student demand and/or financial resources can be provided at area centers.

   Area vocational center students are normally enrolled in grades 11 & 12 and spend a portion of their day at the center yet retain their identity with, receive their general education at, and graduate from their home high school. Secondary area vocational education centers may be owned and operated by K-12 districts, intermediate school districts, and community colleges. The delivery system alternatives selected at the local level are based upon a plan developed by the educational agencies forming the area vocational education program.

4. **The Community College.** Community colleges serve as postsecondary area vocational education institutions. In areas where community colleges do not exist, a public four-year institution may be designated to offer vocational-technical education until such time as community college districts are established.

   The community college shall provide for the vocational-technical education needs of persons who have completed or left high school. This includes persons wishing to continue a vocational education program initiated at the secondary level to prepare for a new occupation and persons wishing to pursue supplemental education to maintain or stabilize employment in their chosen occupation.

   Specialized, high quality, postsecondary vocational-technical eduation should be available to all citizens of the State. Therefore, statewide planning of community college vocational-technical education is essential to provide a comprehensive program and to make judicious use of Federal, State, and local funds.

5. **The Four-Year College and University.** Four-year colleges and universities may be designated by the State Board of Education to offer area vocational-technical education programs at the postsecondary level in areas where community college districts do not exist.

   Four-year collegiate institutions may provide upper division instruction which complements vocational-technical education programs. Upper division articulation should be provided with community college programs to permit students to continue their educational preparation with maximum recognition of course work completed at the community college.

6. **The Private Occupational School.** Licensed Private Occupational Schools may provide vocational instruction through contractual arrangements with public educational agencies in compliance with the Act and the State Plan. High cost, specialized programs which cannot be offered by an individual school district due to the lack of adequate financial resources may be provided by private occupational schools through contractual arrangement.

FEDERAL DEFINITIONS PERTAINING TO THIS STATE PLAN

1. **ACT:**
   The Vocational Education Act of 1963, Pub. L. 88-210, as amended by Title II of the Education amendments of 1976, Pub. L. 94-482, 90 Stat. 2168, 20 U.S.C. 2301 et seq.

2. **ADMINISTRATION:**
Activities of a State or an eligible recipient necessary for the proper and efficient performance of its duties under the Act, including supervision, but not including ancillary services.

3. **ADULT PROGRAM:**
(For reporting purposes) vocational education for persons who have already entered the labor market or who are unemployed or who have completed or left high school and who are not described in the definition of "postsecondary program."

4. **ANCILLARY SERVICES:**
Activities which contribute to the enhancement of quality in vocational education programs, including activities such as teacher training and curriculum development, but excluding administration (except in consumer and homemaking education under Section 150 of the Act).

5. **AREA VOCATIONAL EDUCATION SCHOOL:**
(a) A specialized high school used exclusively or principally for the provision of vocational education to persons who are available for study in preparation for entering the labor market;
(b) The department of a high school exclusively or principally used for providing vocational education in no less than five different occupational fields to persons who are available for study in preparation for entering the labor market; or
(c) A technical or vocational school used exclusively or principally for the provision of vocational education to persons who have completed or left high school and who are available for study in preparation for entering the labor market; or
(d) The department or division of a junior college or community college or university operating under the policies of the State board which provides vocational education in no less than five different occupational fields, leading to immediate employment but not necessarily leading to a baccalaureate degree, if:

(1) The vocational programs are available to all residents of the State or an area of the State designated and approved by the State board; and

(2) In the case of a school, department, or division described in (c) or (d), it admits as regular students both persons who have completed high school and persons who have left high school.

6. **BILINGUAL VOCATIONAL TRAINING:**
Training or retraining in which instruction is presented in both the English language and the dominant language of the persons receiving training and which is conducted as part of a program designed to prepare individuals of limited English-speaking ability for gainful employment as semiskilled or skilled workers or technicians or subprofessionals in recognized occupations and in new and emerging occupations, but excluding any program to prepare individuals for employment in occupations which require a baccalaureate or advanced degree; bilingual vocational training includes guidance and couseling (either individually or through group instruction) in connection with such training or for the purpose of facilitating occupational choices; instruction related to the occupation or occupations for which the students are in training or instruction necessary for students to benefit from such training; the training of persons engaged as, or preparing to become, instructors in a bilingual vocational training program; and the acquisition, maintenance, and repair of instructonal supplies, aids, and equipment, but such term does not include the construction, acquisition, or initial equipment of buildings or the acquisition or rental of land.

7. **CETA:**
The comprehensive Employment and Training Act of 1973, Pub. L. 93-23, 87 Stat. 839, as amended.

8. **COMMISSIONER:**
The U.S. Commissioner of Education or the Commissioner's designee.

9. **CONSTRUCTION:**
(a) Construction of new buildings;
(b) Acquisition, expansion, remodeling, and alteration of existing buildings;
(c) Site grading and improvement; and
(d) Architect fees.

10. **COOPERATIVE EDUCATION:**
A program of vocational education for persons who, through written cooperative arrangements between the school and employers, receive instruction, including required academic courses and related vocational instruction by alternation of study in school with a job in any occupational field, but these two experiences must be planned and supervised by the school and employers so that each contributes to the student's education and to his or her employability. Work periods and school attendance may be on alternate half days, full days, weeks, or other periods of time in fulfilling the cooperative program.

11. **CURRICULUM MATERIALS:**
Materials:

(a) Covering instruction in a course or series of courses in any occupational field; and
(b) Designed to prepare persons for employment at the entry level; or
(c) Designed to upgrade occupational competencies of those previously or presently employed in any occupational field.

12. **DISADVANTAGED:**
(a) Persons (other than handicapped persons) who:

(1) Have academic or economic disadvantages; and
(2) Require special services, assistance, or programs in order to enable them to succeed in vocational education programs.

(b) *Academic disadvantage* for the purposes of this definition of "disadvantaged," means that a person:

(1) Lacks reading and writing skills;
(2) Lacks mathematical skills; or
(3) Performs below grade level.

(c) *Economic disadvantage,* for the purposes of this definition of "disadvantaged," means:

(1) Family income is at or below national poverty level;
(2) Participant or parent(s) or guardian of the participant is unemployed;
(3) Participant or parent of participant is recipient of public assistance; or
(4) Participant is institutionalized or under State guardianship.

13. **ELIGIBLE RECIPIENT:**
(a) A local educational agency, or
(b) A postsecondary educational institution.

14. **FINANCIAL ABILITY:**
As used in section 106(a) (5) (B) (i) of the Act means the property wealth per capita of local school districts and of other public agencies having a tax base or the total tax effort of the area served by these schools and agencies as that effort is a percentage of the income per capita of those within the taxing body.

15. **HANDICAPPED:**(a) A person who is:

(1) Mentally retarded;
(2) Hard of hearing;
(3) Deaf;
(4) Speech impaired;
(5) Visually handicapped;
(6) Seriously emotionally disturbed;
(7) Orthopedically impaired; or
(8) Other health impaired person, or persons with specific learning disabilities; and

(b) Who, by reason of the above:

(1) Requires special education and related services, and
(2) Cannot succeed in the regular vocational education program without special educational assistance; or
(3) Requires a modified vocational education program.

16. **HEW:**
The Department of Health, Education, and Welfare.

17. **HIGH SCHOOL PROGRAM:**
Vocational education for persons in grades 9 through 12.

18. **INDUSTRIAL ARTS EDUCATION PROGRAMS:**
Those education programs:

(a) Which pertain to the body of related subject matter, or related courses, organized for the development of understanding about all aspects of industry and technology, including learning experiences involving activities such as experimenting, designing, constructing, evaluating, and using tools, machines, materials, and processes; and
(b) Which assist individuals in making informed and meaningful occupational choices or which prepare them for entry into advanced trade and industrial or technical education programs.

19. **INSTITUTION OF HIGHER EDUCATION:**
Institution of higher education as defined in section 1201(a) of the Higher Education Act.

20. **LIMITED ENGLISH-SPEAKING ABILITY:**
When used in reference to an individual means;
(a) Individuals who were not born in the United States or whose native tongue is a language other than English, and
(b) Individuals who came from environments where a language other than English is dominant, and by reasons thereof, have difficulties speaking and understanding instruction in the English language.

21. **LOCAL EDUCATIONAL AGENCY:**
(a) A board of education (or other legally constituted local school authority) having administrative control and direction of public elementary or secondary schools in a city, county, township, school district, or political subdivision of a State; or
(b) Any other public educational institution or agency having administrative control and direction of a vocational education program.

22. **LOW-INCOME FAMILY OR INDIVIDUAL:**
Families or individuals who are determined to be low-income according to the latest available data from the Department of Commerce.

23. **NATIONAL ADVISORY COUNCIL (NACVE):**
The previously existing National Advisory Council on Vocational Education which is continued by section 162 of the Act.

24. **POSTSECONDARY EDUCATIONAL INSTITUTION:**
A nonprofit institution legally authorized to provide postsecondary education within a State for persons sixteen years of age or older, who have graduated from or left elementary or secondary school.

25. **POSTSECONDARY PROGRAM:**
Vocational education for persons who have completed or left high school and who are enrolled in organized programs of study for which credit is given toward an associate or other degree, but which programs are not designed as baccalaureate or higher degree programs.

26. **PREVOCATIONAL EDUCATION:**
Prevocational as used in the State Plan for Vocational Education refers to the learning activities that will lead students to a point of making an occupational decision and/or to be introduced to those vocational skills which will be included in the vocational preparation sequence.

27. **PRIVATE VOCATIONAL TRAINING INSTITUTION:**
A business or trade school, or technical institution or other technical or vocational school, in any State, which (a) admits as regular students only persons who have completed or left elementary or secondary school and who have the ability to benefit from the training offered by such institution; (b) is legally authorized to provide, and provides within that State, a program of postsecondary vocational or technical education designed to fit individuals for useful employment in recognized occupations; (c) has been in existence for two years or has been specially accredited by the Commissioner as an institution meeting the other requirements of this subsection; and (d) is accredited (1) by a nationally recognized accrediting agency or association listed by the Commissioner pursuant to this clause, or (2) if the Commissioner determines that there is no nationally reccgnized accrediting agency or association qualified to accredit schools of a particular category, by a State agency listed by the Commissioner pursuant to this clause, or (3) if the Commissioner determines that there is no nationally recognized or State agency or association qualified to accredit schools of a particular category, by an advisory committee appointed by him and composed of persons specially qualified to evaluate training provided by schools of that category, which committee shall prescribe the standards of content, scope, and quality which must be met by those schools and shall also determine whether particular schools meet those standards. For the purpose of this paragraph, the Commissioner shall publish a list of nationally recognized accrediting agencies or associations and State agencies which he determines to be reliable authority as to the quality of education or training afforded.

28. **SCHOOL FACILITIES:**
(a) Classrooms and related facilities (including initial equipment) and interests in lands on which such facilities are constructed.
(b) "School facilities" does not include any facility intended primarily for events for which admission is to be charged to the general public.

29. **SECONDARY PROGRAM:**
Vocational education for persons in secondary grades as defined by State law.

30. **SECRETARY:**
The Secretary of Health, Education, and Welfare.

31. **STATE:**
Includes:
(a) The 50 States;
(b) The District of Columbia;
(c) The Commonwealth of Puerto Rico;
(d) The Virgin Islands;
(e) Guam;
(f) American Samoa; and
(g) The Trust Territory of the Pacific Islands.

32. **STATE BOARDS:**
The State board designated or created by State law as the sole State agency responsible for:
(a) The administration of vocational education; or
(b) Supervision of the administration of vocational education in the State.

33. **STATE EDUCATIONAL AGENCY (SEA):**

(a) The State board of education; or

(b) Other agency or office primarily responsible for the State supervision of public elementary and secondary schools; or

(c) If there is no such office or agency, and office or agency designated by the Governor or by State Law.

34. **VOCATIONAL EDUCATION:**

Organized educational programs which are directly related to the preparation of individuals for paid or unpaid employment, or for additional preparation for a career requiring other than a baccalaureate or advanced degree; for purposes of this paragraph, the term "organized education program" means only:

(a) Instruction related to the occupation or occupations for which the students are in training or instruction necessary for students to benefit from such training; and

(b) The acquisition, maintenance, and repair of instructional supplies, teaching aids and equipment.

The term "vocational education" does not mean the construction, acquisition, or initial equipment of buildings, or the acquisition or rental of land.

35. **VOCATIONAL INSTRUCTION:**

Instruction which is designed upon its completion to prepare individuals for employment in a specific occupation or cluster of closely related occupations in an occupational field, and which is especially and particularly suited to the needs of those engaged in or preparing to engage in such occupation or occupations. Such instruction may include:

(a) Classroom instruction;

(b) Classroom related field, shop, and laboratory work;

(c) Programs providing occupational work experiences, including cooperative education and related instructional aspects of apprenticeship programs;

(d) Remedial programs which are designed to enable individuals to profit from instruction related to the occupation or occupations for which they are being trained by correcting what ever educational deficiencies or handicaps prevent them from benefiting from such instruction; and

(e) Activities of vocational student organizations which are an integral part of the vocational instruction, subject to the provisions in § 104.513.

PART 1 — ADMINISTRATIVE PROVISIONS

1.0 General

Users of this State Plan are hereby informed that throughout the document wherever such nouns as person, individual, student, child, youth, adult and the like are used, equal consideration to both sexes is implied in all cases. Users are also warned that any discrimination on the basis of sex, relative to program offerings or services provided, shall render their program or project subject to disapproval and withdrawal of funds. This means that all programs and projects are to meet provisions of Title IX of the Education Amendments of 1972 which specifically addresses elimination of sexual discrimination in vocational education.

1.1 State Board of Education

1.11 Name and Designation of State Board

The State Board of Education, an elected body, is solely responsible for public education in Michigan. It is responsible for the policies of the Michigan Department of Education. Article VIII, Section 3 of the Michigan Constitution of 1963, vests in the State Board of Education responsibility for leadership and general supervision over all public education, including adult education and instructional programs in the State institutions. Any reference to the "State Board" refers to the official body described above.

1.12 Executive Officer Designation

The Michigan State Constitution of 1963 requires the Board to appoint a State Superintendent of Public Instruction who shall serve as Chairperson of the Board and as the chief administrative officer of the Michigan Department of Education. The Superintendent is the Department official authorized to submit all applications and plans to the Federal government and to administer programs under the several acts incorporated in this Plan.

1.13 State Board Organization and Manner of Selection

"The State Board of Education shall consist of eight members who shall be nominated by party conventions and elected at large for terms of eight years as prescribed by law. The Governor shall fill any vacancy by appointment for the unexpired term. The Governor shall be ex-officio, a member of the State Board of Education without the right to vote." (State of Michigan Constitution, Article VIII, Section 3)

1.14 Authority and Responsibility of State Board and Department of Education (Also see 1.11 and 1.12)

The Michigan Department of Education is the State's Official educational agency. The statutes of the State of Michigan empower it to receive and distribute Federal grants-in-aid and to administer the several acts governing those grants under policies determined by the State Board of Education.

An opinion of the Attorney General of the State of Michigan, December 12, 1968, establishes the Michigan Department of Education as the educational agency having responsibility for the administration of state plans.

1.2 Public Hearings and Information

1.21 Public Hearings

There are no applicable State laws concerning hearings on State plans. The Michigan Department of Education notifies local educational agencies of public hearings concerning such plans. The State Board, upon recommendation of the Department, determines the notification processes and sites for such hearings.

1.22 Public Information

Copies of the State Plan, Annual Program Plan, Accountability Reports, and all Statements of General Policies, Rules, Regulations and Procedures issued by the State Board concerning the administration of this plan and subsequent reports will be made reasonably available to the public. Copies of the

State Plan and Accountability Report will be prepared to enable the Department to distribute copies to the Michigan State Library, all ERIC centers, local educational agencies, and to the general public upon request.

1.3 Duties and Minimum Qualifications of Professional Personnel

The State Board of Education is responsible for establishing qualification standards, provisions for review of such standards, and opportunities for the development and implementation of qualification standards applicable to changing requirements in vocational education. The State Advisory Council for Vocational Education and the Teacher Education and Certification Advisory Council assist the State Board in the appropriate advisory capacity in reviewing qualification standards.

1.31 State Administrative and Supervisory Personnel

All employment, classification, and compensation of personnel shall be subject to the rules of the Michigan Civil Service Commission.

1.31-1 The State Director of Vocational Education

Duties

Shall provide statewide leadership under the direction of the Superintendent of Public Instruction in the design, coordination and implementation of vocational and technical programs in the State.

Minimum Qualifications

Shall be evaluated by the Superintendent of Public Instruction who shall determine that sufficient experience and education has been obtained which will allow for effective conduct of his or her leadership role and duties.

1.31-2 Professional Staff

1.31-21 Deputy Director and Administrative Assistant

The Michigan Department of Education may employ a Deputy Director and Administrative Assistants who possess sufficient teaching experience and/or administrative experience in vocational education to effectively perform such duties as the State Director may assign.

1.31-22 Occupational Specialists (Supervisors and Educational Specialists)

The Department of Education shall employ vocational and technical education supervisors and specialists.

Duties

Shall perform such functions as assigned by the Director of Vocational Education in the coordination and implementation of the vocational and technical education programs in the State.

Minimum Qualifications

Shall possess at least a Master's Degree and be eligible for a Michigan vocational education teaching certificate. Shall have had at least three years' experience as a teacher and/or administrator in vocational education programs. When a State license is required in specialized fields, this license must be obtained prior to employment. Provisions shall be made for personnel having unique and relevant experience in lieu of formal degrees and certification requiring such degrees.

Special Conditions

If a candidate does not meet the requirements set forth in 1.31-22, an evaluation of competency will be made by the Michigan Department of Education. The criteria used in evaluating job qualifications shall include educational background and occupational experience.

1.31-23 **Research Specialists**

The Michigan Department of Education may employ research specialists.

Duties

It shall be the duty of the research specialist to encourage, promote, and conduct such research as deemed necessary by the State Director of vocational education.

Minimum Qualifications

Shall hold at least a Master's Degree from an approved and accredited college or university and present evidence of having ability to promote, encourage, design, conduct, supervise and interpret studies, investigations, and research. Experience in Vocational Education is recommended.

1.31-24 **Vocational Education Guidance and Counseling Specialists**

The Michigan Department of Education may employ adequate supervisory and supportive vocational guidance and counseling specialists.

Duties

It shall be the duty of the Guidance and Counseling Specialists to promote, organize and supervise programs of vocational guidance and counseling.

Minimum Qualifications

Specialists shall hold a valid Michigan Teacher's Certificate with a counseling endorsement and at least a Master's Degree in guidance and counseling from an approved institution. In addition, the consultant shall have a minimum of two year's consultative or administrative experience in a statewide or district-wide guidance and counseling program. Teaching in vocational education and/or supervised work experience is recommended.

1.31-25 **Program Planning and Evaluation Specialists**

Personnel assigned to program planning shall have at least a Baccalaureate Degree and shall demonstrate evidence of proficiency in analysis and planning procedures. Personnel assigned to evaluation shall have at least a Baccalaureate Degree and shall demonstrate evidence of proficiency in procedures for data collection and other research and evaluation techniques.

1.31-26 **Other State Personnel**

The Department of Education shall employ additional personnel as necessary to carry out provisions and compliance with the Act. Qualifications of these persons need not include a background in vocational education but shall include the degrees, licenses and work experience appropriate to the job specifications for the assignment. These criteria must have a direct relationship to requirements of educational supporting staff at the same Civil Service classification. Such personnel would include, but not be limited to program planners, sex role discrimination and stereotyping, Indian education, bilingual education, industrial arts education, program planners and analysts, program evaluators, guidance and counseling, economists and psychologists. The Department shall also employ accountants, secretarial and other clerical personnel as needed. For certain

specialized functions, direct consultative contracts may be awarded by the Department to selected individuals for limited periods of time.

1.4 Personnel Qualification Standards for Eligible Recipients

The State Board of Education is responsible for establishing qualification standards and provisions for review of such standards, and opportunities for the development and implementation of qualification standards applicable to changing requirements in vocational education. The State Advisory Council for Vocational Education and the Teacher Education and Certification Advisory Council assist the State Board in the appropriate advisory capacity in reviewing qualification standards for eligible recipients.

1.41 Eligible Recipient Administration (Secondary, Postsecondary)

1.41-1 Titles

Directors of Vocational Education, Shared-Time Directors of Vocational Education, Area Program Implementors, Career Education Planning District Vocational-Technical Specialists, Occupational Deans.

1.41-2 Duties

To promote, organize, coordinate, supervise, evaluate, and give general direction to a comprehensive program of vocational-technical education. Specific duties to be performed by vocational administrators identified above will vary in accordance with the role jointly established by the Michigan Department of Education and eligible recipients.

1.41-3 Minimum Qualifications (Secondary)

Education

Shall be a graduate of an approved and accredited college or university with at least a Master's Degree and shall have completed vocational education preparation in the administration, supervision, and organization of vocational education programs.

Experience

Shall have had a minimum of three years of experience in administration and/or teaching in vocational education programs.

1.41-4 Minimum Qualifications (Postsecondary)

Experience

Shall have had a minimum of three years of experience in administration and/or teaching in vocational education programs and two years of work experience in an occupational program area of vocational-technical education.

Other Conditions

If a candidate does not qualify, an evaluation of competency will be made by the Michigan Department of Education based upon the combined education and experience of the individual.

1.42 Instructional Personnel, Secondary

1.42-1 Education

Shall hold a certificate or authorization valid for the position to which he or she is assigned and shall possess at least a Baccalaureate Degree from an approved and accredited college or university with a major or minor in the field of specialization or equivalent graduate credits to substitute for the required major or minor. When a State license is required in a specialized field, this license must be obtained prior to employment.

1.42-2 **Occupational Experience**

Shall have a minimum of two years of experience in the occupational area concerned or shall have a planned equivalent program of directed supervised occupational experience approved by the Michigan Department of Education. Such occupational experience will be assessed by its relevancy and recency.

1.43 **Paraprofessionals and Teacher Aides**

Paraprofessionals and teacher aides may be employed providing that: (1) a certified teacher is present during instructional activities each and every school day, and (2) a certified teacher is responsible for the instruction assigned. In general, such personnel will be considered as supporting staff and may receive reimbursement only in special projects or demonstration programs.

1.44 **Teachers of Remedial Instruction**

Shall possess at least a Baccalaureate Degree, valid Michigan teaching certificate, and shall have completed courses related to the specialized area concerned.

1.45 **College Staff that Teach Secondary Students**

Staff of a community college, college, or university who teach secondary students in a program which is a part of the local or sending district's curriculum shall meet the qualifications outlined in Section 1.42-1 and 1.42-2. The controlling factor is whether the high school students being instructed are enrolled in a secondary program or a postsecondary program. If the instruction is an advanced placement or other program of the college, no certificate is required.

1.46 **Prevocational Education Teachers**

Shall meet the qualifications outlined in "Administrative Rules Governing the Certification of Michigan Teachers", 390-1101 — 390-1189.

1.47 **Instructional Personnel — Postsecondary and Adult Supplemental**

Each person teaching an approved vocational-technical education course for which reimbursement is requested shall have a minimum of two years of work experience in the specific occupational area or in a directly related career field. Each institution shall make available, as part of its inservice program, the Michigan Department of Education Competency Based Education modules, or the equivalent, to all vocational-technical instructional staff. When a license is required in a specialized field, this license must be obtained prior to employment.

1.48 **Teacher and Counselor Education Personnel**

1.48-1 **Duties**

Teach professional and/or technical courses designed to prepare or improve vocational-technical teachers, counselors, supervisors and administrators for vocational education programs at the secondary and postsecondary levels; and assist in the development and evaluation of various instructional materials for vocational-technical education programs on the secondary and postsecondary levels in university and field-based settings.

1.48-2 **Qualifications**

Shall possess at least a Master's Degree in an area appropriate to the requirements of the position; shall have had at least three years' experience as a teacher and/or administrator in a secondary or postsecondary vocational-technical education or counseling program; shall have completed at least two years of on-the-job work experience in a recognized occupational area; and, when teaching in a specialized field requiring a State or Federal license, shall hold a license in that field at the time of initial employment as a vocational teacher educator.

1.49 Other Local personnel

Agencies may have need to employ individuals with special expertise for research and exemplary projects, placement activities and other specialized projects. Unless specifically included in the Michigan Department of Education's Request for Proposals, qualifications for these positions will be determined by the grantee.

1.5 Evaluation

Evaluation of State and local vocational education programs will be carried out by the Michigan Department of Education with sufficient extensiveness and frequency to enable the Department to effectively implement the State Plan and to fulfill the purposes of the Act. The purposes of evaluation efforts conducted by the Department will be:

1. To determine the success and efficiency of the State program of vocational and technical education,
2. To assist in formulating recommendations for the improvement, development and expansion of local vocational-technical education programs and services, and
3. To meet local, state and federal information reporting requirements.

The Michigan Department of Education will consult with the State Advisory Council for vocational education during the preparation of plans to conduct State or local program evaluations.

1.51 State Program Evaluation

Periodic evaluations of the State program described in the State Plan will be conducted and/or contracted by the Michigan Department of Education. The primary intent of State program evaluations will be to measure the degree to which the objectives set forth in the State Plan have been achieved.

The Michigan Department of Education will also undertake evaluative efforts to measure the effectiveness of the State program as reflected by the totality of local vocational education programs. Data from represented samples of local program completers and leavers will be collected and analyzed to determine the extent to which they: (1) find employment in occupations related to their training; and (2) are considered by employers to be well trained and prepared for employment.

1.52 Program Evaluation of Eligible Recipients

During the five-year period of the State Plan, the Michigan Department of Education will evaluate the effectiveness of each local vocational education program assisted with funds available under the Act. Local programs will be evaluated based upon criteria related to: (1) historical evidence of sufficient employment of completers/leavers in related occupations, (2) evidence of employer satisfaction with training, (3) the content, organization and physical environment of instruction, (4) cost, (5) personnel, (6) the appropriateness of instruction in light of student needs and abilities, (7) services to special populations, such as women, minorities, handicapped persons, disadvantaged persons, limited English speaking persons, and native Americans.

1.53 Utilization of Evaluation Results

The results of these evaluations will be used to revise the State program of vocational education and to improve the quality and effectiveness of local programs. Results of these evaluations will also be transmitted to the State Advisory Council for Vocational Education for developing their final report.

1.6 Cooperative Agreements

1.61 State Employment Service

The Michigan Department of Education has entered into a cooperative agreement with the Michigan Employment Security Commission.

1.62 Services to Handicapped Persons

Cooperative agreements with the Special Education Service, the Bureau of Rehabilitation and the Vocational-Technical Education Service are being implemented.

1.63 Other Agencies, Organizations and Institutions

1.63-1 Employment and Training Services Council

The Employment and Training Services Council will be provided with copies of working drafts of the Annual Program Plan for the purpose of providing for their comments on provisions which relate to employment and training services. This input will be solicited at or before the public hearing mandated by the Act.

1.63-2 Public Teacher Education Institutions Designated by the Department of Education

Such training shall include both preservice and inservice training for teachers, supervisors, directors, administrators, counselors and others. Public teacher education institutions shall be approved by the State Board of Education to conduct vocational teacher education programs. Such designations shall be in accordance with criteria and policies established by the State Board of Education.

Approved institutions shall maintain standards and requirements necessary for the preparation of vocational teachers and administrative personnel.

1.63-3 Non-Public Teacher Education Institutions

Non-public teacher education institutions may be approved by the State Board of Education to provide teacher training. When teacher training is provided by such institutions, a written agreement developed cooperatively between the Michigan Department of education and the institution providing such training shall be required. Such agreements shall be initiated by the Department and shall describe the program for teacher training and standards, policies, and procedures to be met. The agreements shall be reviewed annually by both parties concerned and revised as needed.

1.63-4 State Advisory Council for Vocational Education

The State Advisory Council has the responsibility of advising the State Board of Education in the development of statewide vocational education policy and programs by:

1. *Advising* the State Board of Education in the development of the five-year State Plan, the Annual Program Plan and Accountability report, and on policy matters arising out of the administration of programs under the Plans,
2. *Evaluating* vocational education programs, services, and activities,
3. *Publishing* an annual evaluation report,
4. *Recommending* changes in programs, activities, and services as deemed necessary,
5. *Identifying*, after consulting with the Employment and Training Services Council, the vocational education and employment and training needs of the State, and
6. *Holding* at least one meeting annually at which time the public is given an opportunity to express views concerning vocational education in the State.

1.63-5 Other Agencies and Institutions

The Director of Vocational-Technical Education Service meets on a regularly scheduled basis with the Directors of all services and divisions within the Michigan Department of Education.These meetings are under the direction of the Superintendent of Public Instruction to plan and coordinate Departmental activities.

Cooperative agreements with other agencies, organizations and institutions concerned with

employment and training needs will be encouraged on both State and local levels. Such agreements will be submitted to the Commissioner as they are formalized.

1.7 **State Reports**

The Michigan Department of Education will prepare and submit reports as required by the Commissioner. The Department will also keep such records, afford access to and comply with such other provisions as the Commissioner may find necessary to assure the correctness and verification of such reports.

1.8 **Vocational Instruction Under Contract**

1.81 **Arrangements with Private Postsecondary Vocational Training Institutions**

(a) Post-secondary vocational instruction provided in other than public institutions may be provided only through arrangements with private post-secondary vocational training institutions where the Michigan Department of Education or the eligible receipient determines that such private institutions can make a significant contribution to attaining the objectives of the State Plan, and can provide substantially equivalent training or can provide programs, equipment, or services not available in public agencies or institutions. Private institutions contracting to provide such instruction must meet the same standards as required of public institutions offering similar instruction. The contract must be reviewed annually.

(b) Such schools must operate in accordance with the regulations for private trade and business schools as defined in Act 148 of Public Acts of 1943 as amended, P.A. 1944 and Act 210 of P.A. 1967. Any contractual arrangement made with the contracting agency or institution involved must contain assurance that federal, state, and local funds paid to such agency or institution will be used only to lower the rate of or eliminate tuition fees and other charges which otherwise would be collected from persons benefiting from such portion of the program.

1.82 **Other Agencies and Institutions**

Arrangements may be made for the provision of any portion of the program of instruction on an individual or group basis by public or non-public agencies or institutions through a written contract with the Michigan Department of Education or local educational agencies. Such contract shall describe the portion of instruction to be provided by such agency or institution and incorporate the standards and requirements of vocational instruction set forth in the Plan. Such a contract shall be entered into only upon a determination by the Michigan Department of Education or eligible recipient of satisfactory assurance that:

(a) The contract is in accordance with State or local law.

(b) The instruction to be provided under contract will be conducted as a part of the vocational education program of the State and will constitute reasonable and prudent use of funds available under the State Plan, and

(c) The contract contains an assurance that federal, state and local funds paid to the contracting agency or institution will be used only to lower the rate of or eliminate tuition fees and other charges which otherwise would be collected from persons benefiting from such portion of the program.

(d) Matching provisions are provided for on a local or state basis to meet minimum requirements.

(e) Such contract shall be reviewed at least annually by the parties concerned.

1.9 **Fiscal Control and Fund Accounting Procedures**

1.91 **Authority of State Official Receiving and Holding Custody to Federal Funds**

The State Treasurer is the custodian of all funds for vocational education as provided in said Act and in this Act, and is charged with the duty and responsibility of receiving and providing for the proper custody, and for the proper disbursement of such monies. (Section 4, Act 149, Public Acts of 1919, as amended.)

1.92 **Expenditure of Federal Funds**

The Director of the Department of Administration is the State Official who may authorize expenditures of vocational education funds under the State Plan. Act 51 of the Extra Session of Public Acts of 1948, as amended, establishes in Section 12 that the State Treasurer, who is the legal custodian of funds, would release such funds for expenditures upon the certification of the State Controller. Act 380 of the Public Acts of 1965 (the Organization Act of 1965), as amended, establishes in Sections 100, 101, 102 and 102a of Chapter 5 of said act that the Director of the Department of Administration assumed the responsibility and authority of the State Controller. The position of State Controller was thereby abolished.

1.93 **Allotment Availability**

1.93-1 **Programs and Services**

Federal funds will be used to reimburse eligible recipients on the basis of pre-approved claims submitted for incurred expenditures. Advance payments may be made for approved anticipated expenditures at the discretion of the Michigan Department of Education.

(a) **Determination of Fiscal Year's Allotment to Which Expenditures are Chargeable**

Funds will be allotted on the basis of a fiscal year commencing on July 1 and ending June 30.

(b) **Program Expenditures**

Expenditures for equipment and supplies shall be charged to the fiscal year in which the purchase order is issued.

Personnel salaries, approved travel expenses and other services shall be charged to the fiscal year in which the services are performed.

(c) **Accounting Procedures**

Reimbursement to eligible recipients will be made on the basis of claims submitted as supported by contract or other evidence of legal liability. The accounting basis to be used by eligible recipients is an accrual basis as prescribed in Department of Education Bulletin No. 1022 (Revised 1976), "Financial Accounting for Michigan School Districts".

Reimbursement for construction and equipment will be made from funds allotted for the fiscal year in which funds were obligated for this purpose. Reimbursement will be made only on obligated funds following submission of reimbursement request and evidence of payment. If the final liquidation period extends into succeeding years, funds will be held over for payment for that portion of the project.

1.93-2 **Construction**

Financial participation in any expenditures for construction of area vocational education facilities is contingent upon prior approval of such construction by the State Board of Education. Construction contracts shall be awarded within a period not to exceed eighteen months from the date the resolution is approved by the Michigan Department of Education.

Under circumstances beyond the control of the eligible recipients and with the approval of the State Board of Education and the U.S. Commissioner of Education, the eighteen months limitation may be extended provided just cause for such an extension is shown by the eligible recipients.

1.94 **Fiscal Records**

The official fiscal accounts and supporting documents of the Michigan Department of Education concerning expenditures of federal, state, or local matching funds will be maintained in the office of the Michigan Department of Education for at least five years after the close of the fiscal year in which the expenditures were made. Records concerning questioned expenditures by the Commissioner will

be kept until adjustments are made and approved by the Commissioner.

1.95 **Audits**

1.95-1 The accounts of the Michigan Department of Education are audited biennially by the Legislative Auditor General, appointed by the Legislature in accordance with Article IV, Section 53 of the Michigan Constitution. Copies of these audits are available in the office of the Michigan Department of Education.

1.95-2 **Audit of Local Accounts**

Eligible recipients and intermediate districts shall have audits made of their financial records annually by certified public accountants or by the State Auditor General or as may be required by the Superintendent of Public Instruction.

Eligible recipients are required to keep records on hand as prescribed in Schedule of Retention and Disposal of Public School Records (Publication #522).

Specific audit standards are outlined in "Finance Accounting for Michigan School Districts," Bulletin No. 1022, revised 1976, published by the Michigan Department of Education.

Audit procedures pertaining to community colleges are outlined in the Michigan Department of Education publication entitled, "Laws, Statutes and Constitutional Provisions Affecting the Establishment and Administration of Community Colleges," Department of Education, July 1, 1968 under (389.143 — Audits and Accounts).

2.0 **Vocational Education Programs**

2.1 **Allocation of Subpart 2 Funds to Program Purposes**

2.11 **National Priority Programs — Percentage Requirements**

Allocation of Federal funds shall comply with the following requirements with respect to the use of Federal funds:

2.11-1 **Vocational Education for Handicapped Persons**

At least 10 percent of the total allotment for any fiscal year to the State for funds appropriated under Section 103 of the Act shall be used only to pay 50 percent of the cost of vocational education for handicapped persons. Programs for secondary handicapped persons shall be consistent with P.L. 94-142 as set forth in the Michigan State Plan for Special Education. Procedures for compliance with P.L. 94-142 are in the cooperative agreement in the appendix of the Annual and Long Range State Plan for Vocational Education. To the maximum extent possible, the regular vocational education program is utilized as the least restrictive environment. All decisions for program placement rest with the Education Planning Placement Committee/Individual Education Program.

2.11-2 **Vocational Education for Disadvantaged Persons**

At least 20 percent of the total allotment for any fiscal year to the State for funds appropriated under Section 103 of the Act shall be used only to pay 50 percent of the cost of vocational education for disadvantaged persons and for persons who have limited English-speaking ability. All disadvantaged students will be enrolled in the regular vocational education program.

The State shall use the following formula in determining its expenditures of funds for persons who have limited English-speaking ability:

(1) First determine the amount of Federal funds reserved for the purposes identified in the first paragraph of this section;

(2) Determine the population having limited English-speaking ability who are between the ages of 15 and 24 inclusively;

(3) Determine the total population of the State aged 15 to 24 inclusively;

(4) Divide step two by step three;
(5) Multiply the quotient from step four by the total amount reserved for paragraph (a) of this section as indicated in step one;

(6) Expend at least this amount for vocational education for persons having limited English-speaking ability.

2.11-3 **Postsecondary Vocational Education**

At least 15 percent of each State's allotment for any fiscal year under Section 103 shall be used only to pay up to 50 percent of the cost of vocational education for persons who have completed or left high school and who are enrolled in organized programs of study conducted by designated postsecondary area vocational education institutions, but which programs are not designed as baccalaureate or higher degree programs.

2.12 **Identification of Handicapped Persons**

2.12-1 **Criteria for Identifying Handicapped Persons**

Consistent with the Bureau of Rehabilitation and Special Education Service, the Vocational-Technical Education Service will use the following criteria to identify various types of handicapped persons:

(a) Emotionally disturbed are identified by certified consulting psychologists.

(b) Those with physical disabilities require a medical evaluation by a licensed medical practitioner.

(c) Those suffering from mental retardation must be certified by a psychological examination administered by a qualified psychological diagnostician.

2.12-2 **Means of Identifying Handicapped Persons**

Vocational Education will be offered to handicapped persons upon their being certified as handicapped by at least one of the above professionals. The major categories of handicapped conditions are as follows:

(a) A person who is: mentally retarded; hard of hearing; deaf; speech impaired; visually handicapped; seriously emotionally disturbed; crippled (orthopedically impaired); or other health impaired person, including a person who suffers from learning disabilities to the extent the disability is a health impairment.

(b) Who, by reason of the above:

(1) Requires special education and related services, and

(2) Cannot succeed in the regular vocational education program without special educational assistance; or

(3) Requires a modified vocational education program.

2.13 **Identification of Disadvantaged persons**

2.13-1 **Criteria for Identifying Disadvantaged Persons**

The term "disadvantaged" means persons (other than handicapped persons) who have academic or economic handicaps and who require special services and assistance in order to enable them to succeed in vocational education programs.

2.13-2 **Means of Identifying Disadvantaged Persons**

(a) Persons (other than handicapped persons) who:

(1) Have academic or economic disadvantages; and

(2) Require special services, assistance, or programs in order to enable them to succeed in vocational education programs.

(b) *Academic disadvantage* for the purposes of this definition of "disadvantaged," means that a person:

(1) Lacks reading and writing skills;

(2) Lacks mathematical skills; or

(3) Performs below grade level.

(c) *Economic disadvantage*, for the purposes of this definition of "disadvantaged," means:

(1) Family income is at or below national poverty level;

(2) Participant or parent(s) or guardian of the participant is unemployed;

(3) Participant or parent of participant is recipient of public assistance; or

(4) Participant is institutionalized or under State guardianship.

2.14 **Apprenticeship Programs**

The Bureau of Apprenticeship and Training of the U.S. Department of Labor has the responsibility for encouraging industry to establish apprenticeship programs and improve existing programs. The role of the Bureau of Apprenticeship and Training includes assisting employer and/or labor in formulating apprenticeship programs; advising on the formulation of trade apprenticeship standards and on individual apprenticeship agreements.

The Department of Education is charged with the responsibility for the review and approval of the related classroom instruction provision contained in registered apprenticeship standards (programs). Registered apprenticeship standards are transmitted to the Vocational-Technical Education Service by the Bureau of Apprenticeship and Training.

The following assurances are set forth regarding related instruction for apprentices who are employed and are learning a skilled trade:

(a) The vocational training is supplemental to the on-the-job training experience of the apprentice.

(b) The worker involved in the apprenticeable occupation must be at least 16 years of age, except where a higher minimum age standard is otherwise fixed by law.

(c) The apprentice training agreement must specify a given length of planned work experience training through employment on the job which is supplemented by related instruction.

(d) The skilled trade must possess all of the following characteristics:

1. It is customarily learned in a practical way through training and work on the job;

2. It is clearly identified and commonly recognized throughout an industry;

3. It involves manual, mechanical, technical skills and knowledge; and

4. It is listed by the Bureau of Apprenticeship and Training as an apprenticeable occupation.

(e) The standards of apprenticeship programs shall adhere to the requirements outlined in the "Labor Standards for the Registration of Apprenticeship Programs," 29 CFR Part 29, U.S. Department of Labor, concerning the admission of women and minority applicants.

2.15 **Matching**

2.15-1 **Overall State Matching**

Federal funds expended under the Act will be matched, on a statewide basis, so that for each federal dollar expended an equal amount or more will be expended from state or local sources but not necessarily in a manner which requires local educational agencies to match Federal funds at a percentage ratio uniform throughout the state. State and local funds which are used to match federal funds will meet the same conditions and requirements as those supported by federal funds. In-kind contributions shall not be used as part of the State's matching and maintenance requirements.

2.15-2 **Reasonable Tax Effort**

A local educational agency making a reasonable tax effort will not be denied funds for the establishment of new vocational education programs solely because it is unable to pay the added non-federal share of the cost of such programs. A local tax effort will be considered reasonable when the local millage supplied the local educational agency meets or exceeds the average State effort and the State Board has determined that the local educational agency cannot operate its regular school day without reduced time for all students. The tax effort is computed annually by the Michigan Department of Education and is based upon a ratio of the annual property tax assessment and annual school operating millage levied, on a statewide basis.

2.16 **Maintenance of Effort**

2.16-1 **Local Educational Agency**

No payments shall be made in any fiscal year under this Act to any local educational agency or to any State unless the Commissioner finds, in the case of a local educational agency, that the combined fiscal effort per student or the aggregate expenditures of that agency and the State with respect to the provision of vocational education by that agency for the fiscal year preceding the fiscal year for which the determination was made was not less than such combined fiscal effort per student or the aggregate expenditures for that purpose for the second preceding fiscal year or, in the case of the State, that the fiscal effort per student or the aggregate expenditures of that State for vocational education in that State for the fiscal year preceding the fiscal year for which the determination was made was not less than such fiscal effort per student or the aggregate expenditures for vocational education for the second preceding fiscal year.

2.16-2 **Postsecondary Educational Institutions**

No payments shall be made in any fiscal year under this Act to any postsecondary educational institution unless the Commissioner finds that the aggregate amount or the amount per student spent by such institution from current funds for vocational education purposes for the fiscal year preceding the fiscal year for which the determination was made was not less than such amount spent by such institution from current funds for the second preceding fiscal year.

2.2 **Allocation of Funds to Local Vocational Education Programs**

2.21 **Local Applications**

All requests for Federal or State funds to be used for vocational-technical education will be submitted to the Vocational-Technical Education Service in the Michigan Department of Education. Forms will be evaluated continually and revised when necessary in order to provide adequate and pertinent information.

2.22 **Content of Local Applications**

Funds will be distributed to eligible recipients on the basis of annual applications which:

(a) Have been developed in consultation with representatives of the educational and training resources available to the area and the local advisory council required by Public Law 94-482.

(b) Describe the vocational education needs of potential students in the area, and to what extent the proposed program will meet such needs.

(c) Describe how evaluations of previous years have been used to develop proposed programs.

(d) Show how the proposed activities relate to employment and training programs conducted in the area under the Comprehensive Employment and Training Act of 1973.

(e) Indicate the relationship between vocational education programs and other programs in the area supported by State and local funds.

(f) Meets the requirements of Section 1.0 of this Plan.

2.23 Procedure for Processing Local Applications for Vocational Education Programs

The Michigan Department of Education will establish submission dates annually for the receipt of applications for funds under this Plan. Notification of these dates will be sent to educational institutions not less than 30 calendar days ahead of the date due. Applications will be received on forms prepared by the Michigan Department of Education. Each applicant will be notified in writing of action taken. The notification of approval may include such terms and conditions as deemed appropriate to assure that the program meets standards specified in the Plan.

2.23-1 Postsecondary

Applications for federal funds for vocational-technical programs may be prepared by postsecondary educational institutions following a local determination of needs of students and occupational job opportunities in the area to be served by the institution. These applications will be processed as follows:

(a) Applications for approval of vocational-technical programs will be reviewed by the Vocational-Technical Education Service.

(b) Recommendations to the State Board of Education will be prepared by the Vocational-Technical Education Service based upon: (1) future employment opportunities for completers/leavers, (2) the content, organization and physical environment of instruction, (3) cost, (4) coordination with employment and training programs, (5) personnel, and (6) the appropriateness of instruction in light of student needs and abilities.

(c) Recommendations will be presented to the State Board of Education by the Vocational-Technical Education Service after consultation with the postsecondary educational institution personnel and the State Board for Public Community and Junior Colleges.

(d) The State Board of Education will take action on an application when it has been determined that the proposed program has met: (1) the requirements set forth in the Act, and (2) policy established by the State Board. The State Board of Education may rescind its approval of any application if it determines subsequently that the applicant's performance is not consistent with the State Plan, the Act, or State Board policy.

2.24 Coordination with Other Public Agencies

It is the desire of the Michigan Department of Education to have statewide coordination of vocational-technical education programs under this Plan with those established under the Comprehensive Employment and Training Act of 1973. The Michigan Department of Education planners representing vocational-technical education and comprehensive employment and training will meet periodically to jointly develop strategies and guidelines for program coordination at the State and local levels.

Local vocational education program planners and prime sponsor program planners will be encouraged to participate in the development of each agency's annual and long-range plans for vocational education and training. Each should consider the other's training capabilities, facilities, programs and trainee output in formulating local plans.

Criteria which will be utilized in program planning and approval to prevent duplication of programming, consist of review of such factors as:

(a) programming for similar O.E. Codes,

(b) programming for same populations,

(c) duplication of facilities,

(d) programming for same services.

The Michigan Department of Education will also work to promote coordination with other State and federal agencies. It will cooperate in the development of State Employment & Training Plans and assist local Employment & Training Planning Councils and other agencies involved in employment and training. Where considered appropriate by the Michigan Department of Education, a review among bureaus and agencies outside the Michigan Department of Education will be held for comment on project applications.

2.25 **Criteria for Determining Relative Priority of Local Applications**

The criteria outlined in this section applies to the priority selection of instructional programs for funding. Priority will be given to those applications which:

(a) are located in economically depressed areas.

(b) exceed the average annual unemployment rate for the previous year.

(c) propose programs new to the planning district or designated area to be served and which are designed to meet employment and training needs.

(d) can provide evidence that necessary resources are not available as identified in Section 106 (a) (5) (A) (i) of the Act.

Once the first priority has been determined, additional priorities will be based upon designated area programming and/or upon the same relative ranking obtained under 2.26. Funding will continue until budgeted funds are exhausted.

2.26. **Criteria for Determining Relative Funding of Local Applicants — Secondary**

Federal funds required to be allocated on a non-uniform basis will be distributed according to the following allocation formula factors. The formula will apply to Disadvantaged and Handicapped Programs, construction, equipment and instructional programs. The minimum and maximum base will be dependent on available State and federal resources.

A district could receive between 45% to 55% Federal funding for disadvantaged, handicapped, construction or equipment. Each of the eight factors will be equally weighted and are subsets of the two major categories, Relative Financial Ability and Relative Concentration of Low Income.

The basis for determining FEDERAL INSTRUCTION PROGRAM reimbursement under the allocation formula is the number of student hours in a program. The following steps are used in arriving at program reimbursement.

(a) Multiply the number of students by length of course by amount of meeting time per week to compute each district's student hours for each program. Multiply student hours by the district's priority points to obtain "adjusted student hours".

(b) Add all districts adjusted student hours for all instructional programs to obtain a state total adjusted student hours.

(c) Divide the appropriation amount by the state total of adjusted student hours to obtain a maximum rate allowable.

(d) Multiply each district's student hours by the maximum rate and the district's priority points to obtain the reimbursement amount.

District's student hours = number of students × minutes course in session per week/300 × length of course (for all of District's programs).

State-wide total of student hours = total of all District's student hours for all programs.

State-wide total adjusted student hours = sum of student hours × priority points for each district.

State-wide maximum allowable rate = appropriation amount ÷ State total adjusted student hours.

Actual District reimbursement amount = state-wide maximum allowable rate × District's priority points × District's student hours.

2.26-1 **Relative Financial Ability**

(a) State Equalized Valuation:
The average state equalized valuation per resident member will be used as the mid-point for this factor with the highest values being at the low point end of the scale.

51,000+	47,000	43,000	39,000	35,000	31,656	27,000	23,000	19,000	15,000	11,000	(Dollars)
0	1	2	3	4	5	6	7	8	9	10	(Scale)

(b) Property Tax Millage Rates for Operation and Debt Retirement:
The combined millage levies for operation and debt retirement will be used for this factor.

18	20	22	24	26	28.38	30	32	34	36	38+	(Tax Mills)
0	1	2	3	4	5	6	7	8	9	10	(Scale)

(c) Amount of State and Federal Forests in the District:
The Average % government owned forest will be used as the midpoint factor.

0	4	8	12	16	20	25	30	35	40	45+	(% Public Owned Forests)
0	1	2	3	4	5	6	7	8	9	10	(Scale)

(d) Excessive Transportation Costs:
The average cost of transporting students will be used as the mid-point for this factor.

30	40	50	60	70	$83.85	90	100	110	120	130+	(Dollars)
0	1	2	3	4	5	6	7	8	9	10	(Scale)

(e) Expenditures Per Pupil:
The average dollars expended per pupil in the State will be used as the mid-point for this factor.

1,800	1,700	1,600	1,500	1,400	$1,265.89	1,200	1,100	1,000	900	800	(Dollars)
0	1	2	3	4	5	6	7	8	9	10	(Scale)

2.26-1a **Relative Concentration of Low Income**

(a) Needy Students:
The average percentage of needy students in schools of the State (students receiving free and partially paid school lunches) will be used as the mid-point for this factor.

2	5	8	11	14	17.3	23	29	35	41	47+	(% Needy Students)
0	1	2	3	4	5	6	7	8	9	10	(Scale)

(b) Title I ESEA Eligibles:
The Average % of ESEA eligibles for the state will serve as the midpoint for this factor.

3	5	7	9	11	12.6	15	17	19	21	23+	(% ESEA Eligibles)
0	1	2	3	4	5	6	7	8	9	10	(Scale)

(c) Dropout Rate:
The average dropout rate of districts for the State will serve as the mid-point for this factor.

0	1.0	2.0	3.0	4.0	4.80	6.0	7.0	8.0	9.0	10.0+	(Dropout Percent)
0	1	2	3	4	5	6	7	8	9	10	(Scale)

2.26-2 **Economically Depressed Areas or High Unemployment Areas**

Areas designated as economically depressed will be those local school districts with 600 or more Title I ESEA eligibles and other local districts with 20 percent or more Title I ESEA eligibles. The information necessary for such determination is available to and annually updated by the Michigan Department of Education.

In the designation of areas of high unemployment the Michigan Department of Education will rely upon the information provided by the Michigan Employment Security Commission which periodically updates such information for all counties and metropolitan areas. Local educational agencies within counties or metropolitan areas whose unemployment rate exceeds the State average will be considered by the Michigan Department of Education as being in an area of high unemployment.

2.26-3 Areas of High Youth Unemployment or School Dropout

The areas of high concentration of youth unemployment will be obtained from the Michigan Employment Security Commission which periodically updates such information. Local educational agencies in areas where the percent of youth applicants for employment equals or exceeds a critical factor established by the MESC will be considered by the Michigan Department of Education as being in an area of high youth unemployment. This factor will equal or exceed a rate of youth unemployment of 12 percent.

The areas in which there is a concentration of school dropouts consist of those school districts where the dropout rate is equal to or exceeds the state dropout average and where there are 100 or more total dropouts. Local school districts may combine efforts in providing sufficient students to offer a program if their dropout rate is equal to or exceeds the state average. A dropout is defined as an individual who leaves a secondary school prior to graduation and does not re-enter. This information is provided annually to the Michigan Department of Education by local school districts.

2.27 Criteria for Determining Relative Funding of Local Applicants — Postsecondary

Community college applications for vocational-technical education programs in postsecondary community college applications are justified and approved based upon employment and training needs and job opportunities, student demand, institutional capability to provide the programs and the availability of federal, State, and local resources.

Community colleges strive to provide vocational-technical education consistent with the needs, abilities, and aspirations of persons which constitute the district. The relative financial ability of the eligible recipient to provide for the inititation and maintenance of vocational-technical education programs varies, as does the number and concentration of students, whose education imposes a higher than average cost. Funds will be allocated among eligible recipients with consideration given to the State Equalized Valuation (SEV) of the district, the number and concentration of yearly equated Vocational-Technical Education Students (YE V-TS) in high cost programs, and the concentration of low income students who receive Basic Opportunity Educational Grants (BOEG).

Factor 1			Sex Equity Incentive Points		
SEV/YE V-TS	Reimbursement Rate % Eligible	% of BOEG Recipients in Occupational Ed.	Reimbursement Rate % Eligible	Percent of Female/Male Enrollment by Program Sex Equity Incentive	Reimbursement Points Eligible
0 - 249,999	1.10	20 - Above	1.05	45 - 55	1.10
250,000 - 499,999	1.08	16 - 19	1.04	35 - 45 56 - 75	1.08
500,000 - 749,999	1.06	12 - 15	1.03	25 - 34 66 - 75	1.06
750,000 - 999,999	1.04	8 - 11	1.02	15 - 24 76 - 85	1.04
1,000,000 - 1,249,999	1.02	4 - 7	1.01	5 - 14 86 - 95	1.02
1,250,000 - Above	1.00	0 - 3	1.00	0 - 4 96 - 100	1.00

2.27-1 Basic Program Support Formula: Postsecondary

The basic program support formula is used to determine the amount of federal funds each community college receives for the purpose of defraying the costs related to implementing quality programs. All courses are clustered in terms of the relative cost to operate the programs, i.e. office and DE, Vocational-Technical, and Health. The Yearly Equated Vocational-Technical Student (YE-VTS) credit hours are multiplied by the added cost factor for each of the occupational course clusters. This number "A" (points) is multiplied by the sum of the points in factor 1, i.e. the State Equalized Valuation divided by the number of Yearly Equated Vocational-Technical Education Students and the percent of Basic Education Opportunity Grant Recipients in Occupational Education to equal "B". The sum of "B" is then multiplied by the Sex Equity Incentive points for each course cluster "C". This total will be the total points per institution. The maximum number of points a district can receive under factor 1 is 15. The maximum number of Sex Equity Incentive points is 10.

Occupational Course Cluster	YE-VTS	×	Added Cost	= A ×	Points in Factor 1	= B × C =	Total Points
Office & D.E.	1.21						
Voc-Tec	1.88						
Health	1.78						

2.28 **Opportunity for Hearings on Local Applications**

The Michigan Department of Education shall take no final action disapproving an application or an amendment thereto or rescinding an approval without affording the eligible recipient reasonable notice. The State Director of the Vocational-Technical Education Service or her/his representatives, will determine if a recipient is in non-compliance with prescribed Programs Standards of Quality and Funding Conditions and may rescind an approval. The Michigan Department of Education will notify each eligible recipient in writing of the recommendations.

(a) In the case of rescinding a program, the notification shall include the reasons for the action, and a statement that disapproval of the program will not preclude its reconsideration or resubmission.

(b) In the case of a deferred disapproval, notification shall include the reasons for the action and the date on which a deferred disapproval will become effective.

(c) In the case of placing a program on a lower funding priority, the notification shall include reasons for the action and how the higher funding priority can be reinstated.

Eligible recipients may appeal a decision within 30 days of notification. Such appeal shall be submitted to the Michigan Department of Education in writing and shall state the action of the Michigan Department of Education which is appealed, the issues upon which the Michigan Department of Education's action is challenged, and all pertinent facts related thereto.

Upon receipt of such appeal the Michigan Department of Education shall prepare a written reply in duplicate within 30 days. Such reply may include a change of position by the Michigan Department of Education, or an affirmation of its original position, in whole or in part.

Within 10 days of receipt of the reply from the Michigan Department of Education, the party denied funds shall indicate whether they wish to continue the appeal. Such notification shall be sent in duplicate to the Michigan Department of Education.

Within 10 days of receipt of notice of the party appealing the decision that they wish to proceed, a public hearing will be scheduled; at which time oral argument will be heard by the Michigan Department of Education hearing officer on the facts presented in written form. A written record of the hearing will be maintained.

The hearing officer will forward to the State Board of Education his or her recommendation, and the State Director of Vocational-Technical Education will make a ruling based upon the recommendation of the hearing officer and information available in the case file. Notification of the ruling, with the reasons, will be given in writing.

2.3 **Supplemental Vocational Education Services**

Recognition is hereby given to the Five Percent Supplemental Vocational Education Services Under Section 112(a) of Title I of the Comprehensive Employment and Training Act of 1973 (CETA), as amended. The Michigan Department of Education/Vocational-Technical Education Service will cooperate fully in implementing provisions of Section 112(a) for the purpose of providing supplemental assistance in support of activities, primarily vocational education and skill training, leading to the ultimate employment and/or upgrading of unemployed and underemployed persons.

3.0 **Work-Study Programs**

In addition to the provisions in 1.0 and 2.0 of this part of the State Plan, the following special provisions apply to work-study programs for vocational education students supported with Federal funds under

Subpart II of the Act. It is not anticipated that Work-Study Programs will be funded in 1977-78 because of insufficient funds. Local educational agencies are urged to develop a working relationship with Prime Sponsors of the Comprehensive Employment and Training Act of 1973 as amended. Other opportunities for student employment are anticipated through the local agencies of the Department of Labor.

3.1 Procedures for Approval of Work-Study Programs

Work-Study programs shall be approved on an individual basis by the Michigan Department of Education and shall be consistent with the policies and procedures set forth in this plan.

3.11 Submission of Applications

Local educational agencies will submit applications which will contain sufficient information that the duration, nature and purpose of the program, and financial arrangement for payment of students can be determined.

3.12 Review of Applications

The Michigan Department of Education will review the applications and take appropriate action. Criteria for determining relative priority of projects will include preference for local educational agencies with high concentrations of youth unemployment and/or school dropouts. Other relevant factors may be included such as the extent to which the local education agency integrates into the program guidance and counseling and other related services designed to achieve the purpose of work-study programs. Additional criteria may be the relevance to annual and long-range plans, reasonableness of cost estimates, plan for supervision, and plan for evaluation.

3.13 Action on Applications

All applications submitted will receive assurance that the Michigan Department of Education will.

(a) Either

(1) approve the application in whole or in part,

(2) disapprove the application, stating reasons for action taken, or

(3) defer action on the application for such reasons as lack of funds or need for further evaluation.

(b) Provide that any deferral or disapproval of an application will not preclude its reconsideration or resubmission.

(c) Notify the applicant in writing of the disposition of the application.

3.2 Requirements of Work-Study Programs

Funds allocated to the State under Subpart II of the Act will be expended solely for the payment of compensation of students employed pursuant to work-study programs approved by the Michigan Department of Education which meet the following requirements.

3.21 Administration of Programs

The work-study program will be administered by the local educational agency and made reasonably available (to the extent of available funds) to all qualified youth.

3.22 Eligible Students

Employment under the work-study program will be furnished only to a student who:

(a) Has been accepted for enrollment or, if already enrolled, is in good standing and in full-time attendance as a full-time student in a program which meets the standards prescribed by the Michigan Department of Education and the local educational agency for vocational education programs.

(b) Is in need of the earnings from such employment to commence or continue a vocational education program; and

(c) Is at least fifteen years of age and less than twenty-one years of age at the date of the commencement of employment and is capable in the opinion of the appropriate school authorities of maintaining good standing in his or her school program while employed under the work-study program.

3.23 **Limitation on Hours and Compensation**

(a) No student shall be employed under such work-study program for more than a reasonable number of hours in any week during which classes in which he or she is enrolled are in session.

(b) There are no restrictions on the amount of total wages a student may earn. Compensation shall not exceed payments under other comparable Federal funds.

3.24 **Qualifying Employment**

Employment under work-study programs will be for the local educational agency or for some other public agency or institution (Federal, State, or local) pursuant to a written arrangement between the local educational agency and such other agency or institution, and work so performed will be adequately supervised and coordinated and will not supplant present employees of such agency or institution who ordinarily perform such work. In those instances where employment under work-study programs is for a Federal agency or institution, the written arrangement between the local educational agency and Federal agency or institution will state that students so employed are not Federal employees for any purpose.

4.0 **Cooperative Vocational Education**

Students may participate in cooperative vocational education through:

4.1 **Regular Occupational Programs**

Cooperative vocational education is a technique or strategy of instruction, which provides the student with supervised and coordinated on-the-job training and related classroom instruction. Cooperative vocational education is administered by local educational agencies and postsecondary institutions with the participation of public or private employers providing on-the-job training opportunities. The costs of cooperative vocational education are reimbursed on an added cost or a per pupil basis.

4.2 **Part G — Cooperative Occupational Programs**

The State shall give priority to cooperative education programs to local education agencies in areas that have high rates of school dropouts and youth unemployment. Funds will be used only for developing and operating cooperative vocational education programs which provide training opportunities that may not otherwise be available and which are designed to serve persons who can benefit from these programs.

4.21 **Assurances Relating to Cooperative Education**

(a) Provisions have been made for the participation of students enrolled in private non-profit schools whose educational needs are of the type which the program is designed to meet.

(b) Policies and procedures will be adopted for accounting, continuous evaluation and follow-up of students who complete or leave these programs.

(c) Cooperative vocational education programs may be reimbursed on a project basis.

(d) Funds are used only for Cooperative Education as defined in Section 195(18).

(e) Necessary procedures have been established for cooperation with other agencies in identifying jobs for persons enrolled in programs.

(f) Provisions will be made where necessary for reimbursement of added cost to employers.

(g) Provisions for ancillary services necessary to assure program quality and adequate evaluation.

(h) Federal funds are not commingled so as to lose their identity.

5.0 Energy Education Programs

The basis for further funding of energy education programs will result from a needs study to be conducted during the 1977-78 year.

6.0 Construction of Area Vocational School Facilities

6.1 Application Procedures

6.11 Submission of Applications

Construction applications may be submitted by local educational agencies which meet the criteria established by the Michigan Department of Education. Such application shall be made on forms provided and shall be submitted by the data established by the Michigan Department of Education. Consultant services will be offered to eligible educational agencies requesting construction application forms.

6.12 Review of Applications

Applications will be reviewed for proposed manner of construction to assure economical and functional facilities and compliance with all specified Federal and State rules and regulations applicable to construction projects receiving Federal financial assistance.

6.13 Action on Applications

Recommendations for project approval will be made by the Vocational-Technical Education Service to the State Board of Education for final decision. The Michigan Department of Education will notify each applicant in writing of the disposition of the application.

6.14 Coordination with Other Agencies

Construction projects must adhere to standards and specifications of the State. In addition to complying with the State standards and specifications, the projects must be approved by the Fire Marshal of the Department of State Police and the State Commissioner of Health. Approval procedures also require State building plans shall be submitted to and approved by the State Department of Administration in the manner outlined in Section 18.13 of the Michigan Compiled Laws of 1948, when such buildings will be constructed by the State.

6.2 Construction Requirements

6.21 Labor Standards

All laborers and mechanics employed by contractors and subcontractors on all construction projects assisted under the Act will be paid wages at rates not less than those prevailing as determined by the Secretary of Labor in accordance with the Davis-Bacon Act (as amended) (40 U.S.C. 276a-276a-5) and 29 CFR Part 1 (29 F.R. 95), and shall receive overtime compensation in accordance with and subject to the provisions of the Contract Work Hours Standards Act (40 U.S.C. 327-332), that such contractors and subcontractors shall comply with the provisions of 29 CFR Part 3 (29 F.R. 97), and that all construction contracts and subcontracts shall incorporate the contract clauses required by 29 CFR 5.5 (a) and (c) (29 F.R. 100, 101, 13463).

6.22 Equal Employment Opportunity

All construction contracts exceeding $10,000 shall include the employment non-discrimination clause prescribed by Section 203 of Executive Order No. 11246 of September 24, 1965, (30 F.R. 12319), and the Michigan Department of Education or local requirements of Section 301 of said Executive Order.

6.23 Avoidance of Flood Hazards

In planning the construction of school facilities under the Act, the Michigan Department of Education or local educational agency shall, in accordance with the provisions of Executive Order No. 11296 of August 10, 1966 (31 F.R. 10663), and such rules and regulations as may be issued by the Department of Health, Education, and Welfare to carry out those provisions, evaluate flood hazards in connection

with such school facilities and, as far as practicable, avoid the uneconomic, hazardous, or unnecessary use of flood plains in connection with such construction.

6.24 **Accessibility to Handicapped Persons**

In the planning of construction of school facilities under the Act and to the extent appropriate in view of the uses to be made of the facilities, the Michigan Department of Education or local educational agency shall take into consideration the accessibility of the facilities to, and the usability of them by, handicapped persons, and their compliance with the minimum standards contained in "American Standard Specifications for Making Buildings and Facilities Accessible to, and usable by, the Physically Handicapped" approved by the American Standard Association, Inc. with appropriate usable segments of "Building Standards of the University of Illinois Rehabilitation Center" and "Occupancy Guide, Department of Veterans Benefits, Regional Offices, Veterans Administration," and with such other standards in that regard as the Secretary of Health, Education and Welfare may prescribe or approve.

6.25 **Competitive Bidding**

All construction contracts shall be awarded to the lowest qualified bidder on the basis of open competitive bidding except that, if one or more items of construction are covered by an established alternative procedure consistent with State and local laws and regulations, which are approved by the State agency as designed to assure construction in an economical manner consistent with sound business practice, such alternative procedure will be allowed. Related services such as the obtaining of architectural engineering and the acquisition of real and personal property may be obtained by alternative procedures.

6.26 **Environmental Protection**

All building construction will meet the Guidelines for Federal Agencies under the National Environmental Policy Act (P.L. 91-190) as required by Section 102 (2) (C) and Executive Order 11514.

7.0 Special Programs for the Disadvantaged

7.1 Allocation of Funds

Allocation of funds will be made for programs for the disadvantaged located in areas of the State having high concentration of youth unemployment and school dropouts.

7.2 Special Provision

The following special provisions apply to programs for the disadvantaged supported with federal funds under Section 140 (b) of the Act:

(a) Representatives of and/or disadvantaged persons must be included on all advisory committees.

(b) A strong vocational counseling and job placement component must be central in all program design.

(c) The extent to which services rendered in such programs are an expansion of or are in addition to regular services must be clearly established.

(d) Local educational agencies must meet the criteria established for areas of high concentration of youth unemployment and school dropouts and must demonstrate the relationships of the program to occupational needs of the area.

(e) The program utilizes such community resources as business, industry, and social services in program design.

7.3 Participation of Students in Non-profit Private Schools

Students attending non-profit private schools will be eligible to participate in Section 140 (b) programs to an extent consistent with the number of such students in the areas to be served whose educational needs are of the type which Section 140 (b) programs are designed to meet.

7.4 **Noncommingling of Funds**

Federal funds used to accommodate students in non-profit private schools will not be commingled with State or local funds so as to lose their identity as funds from federal sources. It is not necessary to maintain a separate bank account so long as accounting methods are established which assure that expenditures of such federal funds can be separately identified from other expenditures. This will include maintaining:

(a) A separate set of records including a fund ledger to reflect all receipts of disbursements of Federal funds, and

(b) All disbursements of Federal funds shall be supported by adequate documentation including payroll records, purchase orders and invoices.

8.0 **Consumer and Homemaking Education**

In addition to the provisions in 1.0 and 2.0 of this part of the State Plan, the following special provisions apply to consumer and homemaking education supported with Federal funds under Title I, Subpart 5 of the Act.

8.1 **Establishing and Operating Programs**

Consumer and homemaking education programs shall be designed to help individuals and families improve home environments and the quality of personal and family life and includes instruction in consumer education, food and nutrition, family living and parenthood education, child development and guidance, housing and home management (including resource management), and clothing and textiles. Consumer and homemaking programs shall be designed to:

(a) Encourage participation of both males and females.

(b) Encourage elimination of sex stereotyping.

(c) Give greater consideration to economic, social, and cultural conditions and needs, especially in economically depressed areas.

(d) Encourage outreach programs in communities for youth and adults giving considerations to special needs of people.

(e) Prepare males and females who have entered or are preparing to enter the work of the home.

(f) Emphasize consumer education, management of resources, promotion of nutritional knowledge and food use, and parenthood education to meet the current societal needs.

8.11 **State Operated Programs**

Currently the Michigan Department of Education does not operate vocational education programs. If at some later date the Department does elect to operate programs, the procedures by which the State Board initiates, approves, and undertakes such programs will be provided.

8.12 **Locally Operated Programs**

Locally operated consumer and homemaking education programs shall meet the standards and policies as set forth in Section 8.0 to 8.3 and other additional program requirements as shall be determined by the Michigan Department of Education.

8.12-1 **Submission of Application**

All applications submitted to the Michigan Department of Education by local educational agencies must be submitted upon forms provided by the Michigan Department of Education and shall give consideration to:

(a) Local adoption of performance objectives for all courses in the consumer and homemaking program.

(b) The effective utilization of a local advisory committee.

(c) Identified economically depressed and high unemployment areas.

(d) Programs designed for youth and adults for the dual role of homemaker and wage earner.

8.12-2 **Review of Applications**

All applications submitted to the Michigan Department of Education will be reviewed in terms of such pertinent factors as:

(a) Relevance to priority areas in vocational education specified in the Long-Range Program Plan and to vocational education programs, services, and activities described in the Annual Plan.

(b) Adequacy and competence of personnel designed to carry out the program or project.

(c) Adequacy of facilities.

(d) Programs designed to eliminate sex stereotyping and sex bias in all consumer and homemaking education.

(e) Reasonableness of cost estimates.

(f) Expected potential of the proposed program or project being made a part of the regular vocational education program.

(g) The expected potential for utilizing the results of the proposed programs or projects in exemplary or regular vocational education programs.

8.12-3 **Action on Applications**

All applications submitted will receive assurance that the Michigan Department of Education will:

(a) Either

1 Approve the application in whole or in part,

2 Disapprove the application, stating reason for action taken or,

3 Defer action on the application for such reasons as lack of funds or need for further evaluation;

(b) Provide that any deferral or disapproval of an application will not preclude its reconsideration or resubmission.

(c) Notify the applicant in writing of the disposition of the application.

8.13 **Required Allocation of Funds to Certain Areas**

At least one-third of the Federal funds under this section shall be used in economically depressed areas or areas with high rates of unemployment for programs designed to assist consumers and to help improve home environments and the quality of family life.

8.2 **Required Content of Program**

Consumer and homemaking education programs shall be designed so that:

(a) The program will be designed for males and females who entered, or are preparing to enter the occupation of homemaking.

(b) The program will be designed to prepare such youth and adults for the role of homemaker or to contribute to their employability in the dual role of homemaker and wage earner.

(c) The program will include consumer education as an integral part of the content.

(d) The program will deal with increased numbers of women working outside the home, and increased numbers of men assuming homemaking responsibilities and the changing career patterns for men and women.

(e) The program will give greater consideration to economic, social, and cultural conditions and needs especially in economically depressed areas and such courses may include bilingual instruction where appropriate.

(f) The program will encourage outreach programs in communities for youth and adults giving considerations to special needs such as, but not limited to, aged, young children, school age parents, single parents, handicapped persons, educationally disadvantaged persons, and programs connected with health care delivery systems, and programs providing services for courts and correctional institutions.

8.3 Ancillary Services and Activities

The Michigan Department of Education will encourage ancillary services, activities and other means of assuring quality in consumer and homemaking education programs. Such services and activities may include, but are not limited to:

(a) Teacher training and supervision

(b) Curriculum development

(c) Research

(d) Program evaluation

(e) Special demonstration and experimental programs

(f) Development of instructional materials

(g) Exemplary projects

(h) Provision for equipment

(i) State administration and leadership

Evaluation and research designed to meet the requirements of consumer and homemaking programs will be compatible and coordinated with overall vocational education evaluation and research activities. Personnel working in the above ancillary services will meet the responsibilities and qualifications as contained in 1.3.

9.0 Program Improvement and Supportive Services

9.1 Program Improvement

9.11 Plan for Program Improvement

The purpose of a program improvement plan is to guide activities that will respond beneficially to identified needs for change in the instructional and other programs provided students. At the least, it must address program improvement activities authorized by Sections 131, 132, and 133 of P.L. 94/482, as amended. Optimally, it would deal with coordinating all systematic efforts toward program improvement in Vocational Technical Education Services (VTES), Michigan Department of Education, regardless of the source of funds.

The basic structure of this plan rests on a model consisting of nine sequenced phases of program improvement activities. The phases are:

1. Problem identification which results in the recognition of a need for improvement.
2. Refinement of each recognized need into an operational statement which defines the discrepancy between actual and desired student or other program outcomes.
3. Assignment of a planning priority to each need based on its importance.
4. Analysis of alternative strategies for meeting each need according to its priority and the selection of a strategy for meeting each need.
5. For the strategy selected, the specification of operationally defined goals, measurable objectives, and activities, which become the core of a project to meet a need.

6. Allocation of funds according to priority.

7. Development of a work plan for accomplishing the objectives inhouse or for issuing an RFP.

8. Execution of the work plan by staff or by a contractor monitored by staff.

9. Evaluation of specified benchmarks as the strategy is applied including "final" outcomes.

Numerous agencies and groups outside the Michigan Department of Education, as well as units within it, are involved in the program improvement process. Roles in each of the nine phases, which vary with the need, are indicated in Figure 1.

Figure 1
Roles in the Program Improvement Process

Phase	Advisory Groups	ISD/LEA Directors & Staff	State VTES Staff	RCU	VTES Executive Comm. (incl. RCU Dir.)	Contractor	Third Party Evaluator
1. Problem Identification	X	X	X	X			
2. Refinement			X	X			
3. Assignment of Priority					X		
4. Analysis of Alternative Strategies			X	X			
5. Goals & Objectives			X	X			
6. Funds Allocation					X		
7. Work Plan Develop/RFP			X	X			
8. Performing Work or Monitoring Contract			X	X		X	
9. Evaluation			X	X		X	X

Information feeding into the problem identification process, noted in Phase 1 above, comes from numerous sources. They include formal hearings on the State Plan, formal and informal recommendations from groups and organizations of educators and employers, ISD and LEA directors, coordinators and other staff, the Michigan State Advisory Council for Vocational Education, the annual program evaluation report, staff data analyses, and staff experiences in monitoring programs and providing technical assistance. New statutory mandates, where compliance requires basic changes in procedures or programs, are included as information which supports problem identification.

Planning priorities for program improvement, Phase 3 above, are developed from the information obtained in Phase 1 and refined into operational statements. The statements appear as objectives among other objectives, with their associated criteria and annual projected activities, elsewhere in this Plan. The fact of the inclusion of a need reflected in an objective or activity indicates a priority. The annual program improvement plan provides a description of priorities in compliance with Regulation 104.703(c)(2) by relating each project to a Long-Range Plan objective or to a statutory mandate. Since serious program improvement effects seldom can be accomplished in a year or two, these priorities are relatively stable. The alternative strategies noted in Phase 4 above, are based on a "research, development, and dissemination" process model. The sequential sets of activities indicated by the model are: (1) research to identify the parameters and basic approaches to meeting a need or to evaluate a program or project intended to meet a need; (2) development of curriculum or other student-oriented products intended to meet the need; and (3) dissemination to foster adoption of the product as needed by schools. For a given need or problem, research will not be required if the extent of the problem and approaches to it are known. If a product exists, development is not needed. If a product has been adequately piloted, only dissemination would be needed. In all cases, the process culminates in "implementation." Figure 2 illustrates a typology of four alternative strategies, each designed by its initial type of activity.

Figure 2
Strategies for Program Improvement

Strategy	Activity			
	Research	Development	Dissemination	Implementation
Research	X	X	X	X
Development		X	X	X
Dissemination			X	X
Implementation				X

Activities appropriate to each strategy phase include:

Research activities directed toward:

1. Assessment of needs;
2. Definition of problem;
3. Provision of planning data, including evaluations; and
4. Development of information needed for development.

Development activities directed toward:

1. Developing a plan;
2. Discovery of existing products appropriate to a defined need and steps preparatory to disseminating them;
3. Creation of a product for dissemination, including curricula, inservice training modules, instructional manuals, etc; and
4. Pilot testing and revision, if necessary.

Dissemination activities directed toward:

1. Making clients aware and interested in a product;
2. Provision of information for client's decision to adopt or not adopt a product;
3. Provision of pre-implementation training is required, after the client has decided to use a product.

Implementation activities which support installation of a product for use with students.

The sets of activities correspond to sections of P.L. 94/482 as follows:

Research: Section 131.

Development: Section 131.

Section 132, when an exemplary project is primarily a pilot for the testing and adaptation of a developed product.

Section 133.

Dissemination: Section 131.

Section 132, when an exemplary project is primarily a demonstration for other schools.

Section 135, when the adoption and implementation of a product requires staff training.

Implementation: Funds for this activity may derive from program improvement sections or since most improvement represents a replacement of a current practice rather than an addition, use of basic program support funds appears to be appropriate.

Strategies which include "dissemination" of student-oriented products of research and development, successfully accomplished, will meet the dissemination requirements of Regulation 104.703(c)(3) which apply to projects contracted under Section 131, 132, and 133 of P.L. 94/482. Some general principles exist for the dissemination of an innovation by an agency in order to promote its adoption by a client group. However, sound application of the principles to specific projects is a technical matter that may vary significantly project to project. The variation is based on many considerations, including many characteristics of the client group or audience, both as individuals and as an organization, the innovation, the relationship between the agency and its clients, and resources available to support the strategy.

Because of the impossibility of being both specific and technically sound in describing a dissemination approach for all projects, suffice it to state that the best available professional judgment, based upon current dissemination theory and practice, will be used to design dissemination plans for specific projects. Execution of the dissemination plans for program improvement projects is the responsibility of the Vocational-Technical Educational Service, unless formally delegated, since it has fiscal control of all program improvement grants. A brief description of specific dissemination plans will appear as part of the annual plan.

9.12 State Research Coordination Unit

9.12-1 Organizational Structure

Research coordinating unit functions are assigned to the Research, Evaluation, and Assessment Services of the Michigan Department of Education. Among other duties, the Director is responsible for the direction, administration and supervision of vocational education research coordination unit activities, including liaison with the Director of the Vocational-Technical Education Service.

9.12-2 Staff

Specified professional and clerical staff members are assigned primarily to research coordination activities. As needed, other members of the Service's professional staff become involved in specific research coordination activities when their expertise is required.

9.12-3 Research Coordination Functions

Functions in general may include, but are not restricted to:

(a) Assist in the planning, e.g. the identification of specific needs for information for vocational education decision-makers, the assignment of priorities for meeting those needs and the coordination of research activities aimed at fulfilling these priorities.

(b) Carrying out research, assisting others to design research and stimulating relevant research.

(c) Conducting dissemination activities and assisting others to design and conduct dissemination activities, especially with respect to assisting the Vocational-Technical Education Service meet the obligations under Regulation 104.703(c)(3) to disseminate and foster implementation of products of projects it funds under Sections 131, 132, and 133.

(d) Collecting, organizing, reporting and interpreting information from reports and studies in which the State staff was involved, and from other relevant reports and studies for the purpose of dissemination.

(e) Assisting vocational education planners to use research in the development of programs.

9.12-4 **Relationships**

The Research, Evaluation and Assessment Services will establish and maintain relationships necessary to effectively discharge research coordination functions. These relationships shall involve the State Director of Vocational-Technical Education and relevant members of the State vocational education professional staff.

They may involve, but are not necessarily restricted to, Michigan Department of Education staff in services and divisions other than vocational education, intermediate and local educational agency staffs, individuals and organizations who do or may do vocational education research and research related to vocational education, teacher training institutions, USOE offices and other federal and state agencies and business and industry.

9.13 **Notification to Commissioner**

The research coordination unit shall submit to the Commissioner and to the National Center for Research in Vocational Education the following:

(a) Two copies of an abstract of each approved project for program improvement, within 30 calendar days after approval of the project, containing the source and amount of funds obligated to the project; and

(b) Two copies of the final report resulting from the State project, within three months after the ending date of the project.

9.14 **Contracted Research**

All or part of a research effort funded under Section 131 may be performed under direct contract as the Director of the Research, Evaluation and Assessment Services and the Director of Vocational-Technical Education Service may jointly decide. Such research may be designed and developed within the Research, Evaluation, and Assessment Services in consultation with the Director of the Vocational-Technical Education Service.

9.2 **Research**

All research programs and projects supported with Federal funds will conform to Section 131 of the Education Act of 1976 (as amended) and will meet the provisions of Section 1.0 of this Plan.

9.21 **Contract Requirements**

No contract shall be made pursuant to Sections 104.705 and 104.708 unless the applicant can demonstrate a reasonable probability that the contract will result in improved teaching techniques or curriculum materials that will be used in a substantial number of classrooms or other learning situations within five years after the termination date of such contracts.

9.3 **Exemplary and Innovative Programs**

Exemplary and innovative programs and projects supported with Federal funds will conform to Section 132 of the Education Act of 1976 (as amended) and will meet the provisions of Section 1.0 of this Plan.

9.31 **Program or Project Requirements**

All program or projects funded under Section 132 shall:

(a) Give priority to programs and projects designed to reduce sex bias and sex stereotyping in vocational education.

(b) To the extent consistent with the number of students enrolled in private nonprofit schools in the area to be served, whose educational needs are of the type which the program is designed to meet, make provision (in accordance with the requirements set forth in Section 104.533 of the Act) for the participation of these students in the programs.

(c) Provide that the Federal funds made available for exemplary and innovative programs to

accommodate students in nonprofit private schools will not be commingled with State or local funds.

9.4 **Curriculum Development**

Curriculum development projects supported with Federal funds will conform to Section 133 of the Education Act of 1976 (as amended) and will meet the provisions of Section 1.0 and 2.0 of this Plan.

9.5 **Vocational Guidance and Counseling**

Vocational guidance and counseling programs and projects supported with Federal funds will conform to Section 134 of the Education Act of 1976 (as amended) and will meet the provisions of Sections 1.0 and 2.0 of this plan.

9.51 **Conformity with the Five Year Plan**

9.51-1 Michigan will not use less than twenty percent of the Federal funds available under Section 130 of the Act to support vocational development, guidance and counseling programs, services and activities.

9.51-2 The expenditure of funds for this purpose shall be in accordance with the approved five-year State Plan and Annual Program Plan.

9.6 **Vocational Education Personnel Development**

9.61 **Policies and Procedures for Vocational Education Personnel Development**

Vocational education under the State Plan will include Vocational Education Personnel Development programs (both preservice and inservice) which are adequate to provide for a sufficient supply of qualified teachers, supervisors and other vocational education personnel in the State. All Vocational Education Personnel Development at the preservice level shall be performed by cooperating institutions of higher education.

The State Board shall designate colleges and universities to provide facilities and personnel required for preservice and inservice of Vocational Education Personnel Development.

Vocational Education Personnel Development activities may be provided by the Department of Education or contracted by the Department of Education to accredited public and non-public institutions, local educational agencies, or industry for inservice or preservice training of individuals preparing for or working directly or indirectly with vocational education.

9.61-1 **Administrative Responsibility for Vocational Education Personnel Development**

The Vocational Education Personnel Development program is administered as a part of the total vocational education program of the Michigan Department of Education. General program direction is given by the State Director of Vocational Education with coordination, planning, and implementation centered in the Personnel Development Unit. The Personnel Development Unit is responsibile for:

(a) Assessing the total State vocational education personnel needs.

(b) Determining the extent to which the needs are met.

(c) Arriving at priorities.

(d) Devising systems for meeting the priorities.

(e) Coordinating the various activities.

9.61-2 **Description of Vocational Education Personnel Development Intent**

All Vocational Education Personnel Development funded under this Plan shall be under the supervision and control of the Department of Education.

Vocational Education Personnel Development activities shall be: inservice, either on-campus

or off-campus utilizing courses, workshops, conferences, institutes, or tutorial sessions. Vocational Education Personnel Development may be provided by qualified personnel from institutions of higher education, State Department of Education, local education agencies, and industry. Vocational Education Personnel Development may be provided by teachers, administrators, and support staff in all recognized occupational fields. It shall include, but not be limited to, competency development in the area of planning, development and evaluation; instructional planning; facility and resource management; student guidance and evaluation; school-community relations; student vocational organizations; elimination of sex-role discrimination and stereotyping; planning and conducting inservice programs for teachers and counselors of the bilingual and special needs students.

9.61-3 **State Staff Responsibilities for Vocational Education Personnel Development Coordination**

The Personnel Development Unit staff with advisory input shall be charged with:

(a) Assessing standards and criteria of personnel development programs.

(b) Employing new techniques for attracting and training persons who can stimulate creativity in occupational education.

(c) Familiarizing teachers with new curriculum materials in vocational education.

(d) Encouraging integration of vocational education into the mainstream of educational experience of all students.

(e) Emphasizing a comprehensive approach to preservice and inservice in both pre- and post-baccalaureate training.

(f) Disseminating Vocational Education Personnel Development information.

(g) Developing procedures for coordination with other appropriate Vocational Education Personnel Development programs.

The Department of Education shall solicit proposals for Vocational Education Personnel Development activities from higher education agencies, local education agencies and other private and public agencies. Solicitation will be via formal request for proposal (RFP).

9.61-4 **Coordination with Other Resources and Programs**

The coordination of programs and agencies necessary to insure maximum effectiveness and efficiency in the use of federal and State funds and to avoid duplication of financial and program efforts shall be the responsibility of the Personnel Development Unit.

9.61-5 **Review and Evaluation of Vocational Education Personnel Development System**

(a) Objectives of the review and evaluation of the professional development program are to:

1. Assess the validity of the determined needs in relation to actual program development.
2. Assess the appropriateness of the methods and procedures used in determining the needs.
3. Assess the validity and reliability of the data-gathering sources.
4. Evaluate methods and procedures used in administering and supervising funded programs.
5. Determine the effectiveness of the methods and procedures used in establishing the relative priorities of needs.
6. Determine the extent to which new and more effective approaches were encouraged by activities under the program.
7. Assess the impact of program activities on equalizing educational opportunities.

particularly with respect to improved services, instructional practices, and programs for disadvantaged and handicapped students.

8. Determine desirable changes and modifications in the administrative pattern and organization.

9.7 **Application Procedures for Section 130 of the Act**

Specifics of the application procedures are to be determined cooperatively by the Research, Evaluation and Assessment Services and the Vocational-Technical Education Service and will be issued as a separate document. The solicitation will be done by means which reasonably assure that all known potential applicants in the state become aware of (1) solicitation, (2) procedures for making application, (3) criteria for review of proposals, and (4) the procedures of review.

9.8 **Grants to Assist in Overcoming Sex Bias**

The Michigan State Board of Education provides assurance that federal funds under Section 130(a) of the Act will be expended to support activities and projects which show promise of overcoming sex stereotyping and bias in vocational education.

10.0 **Privacy Rights of Parents and Students**

Public or private educational agencies or institutions at all levels which receive funds under provisions of this State Plan must provide parents of students, or to the students themselves if they are attending college or are 18 years of age or older, access to official records directly related to the students and an opportunity for a hearing to challenge such records for accuracy; and must obtain written consent of parents or of the individual student if attending college or if 18 years of age or older before releasing personally identifiable data about students to other than a specified list of exceptions as included in provisions of P.L. 93-380, the Family Educational Rights and Privacy Act of 1974.

11.0 **Industrial Arts**

In addition to the provisions in 1.0 and 2.0 of this part of the State Plan, the following special provisions apply:
Industrial arts education instruction programs reimbursed from vocational funds shall be designed to:

(a) Help individuals make informed and meaningful occupational choices. In order to accomplish this, such programs shall:

1 Provide occupational information and instruction pertaining to a broad range of occupations, including training requisites, working conditions, salaries or wages, and other relevant information;

2 Provide exploratory experiences in shops and/or laboratories;

3 Provide observations in business or industry to acquaint students with jobs in community settings;

4 Provide guidance and counseling for students enrolled in the industrial arts program to help them make informed and meaningful choices in selected occupational fields; and

5 Employ industrial arts teachers who have qualifications as provided in Section 1.46 of this State Plan.

(b) Prepare individuals for enrollment in advanced or highly skilled and technical education programs. In order to accomplish or facilitate this purpose, such programs shall:

1 Provide individuals with occupational information and exploratory experience for enrollment in such programs;

2 Provide occupational information and exploratory experiences directly related to current practices in industry; and

3 Be conducted in an institution approved by the State Board of Vocational Education and taught by industrial arts teachers who have the qualifications specified in this State Plan.

12.0 Student Organizations

Vocational Student Organizations shall be an integral part of the instructional programs of the respective occupational areas, and will be supervised by vocational education personnel who are qualified in the occupational area which the student organization represents.

The integration of Vocational Student Organizations in instructional programs expands the educational experiences of students enabling them to more effectively reach their vocational goals. These goals include:

(a) The development of occupational skills, including knowledge and attitudes in preparation for gainful and meaningful occupations, including new and emerging; and to encourage advancement toward highly skilled and technical occupations and careers, including the role of homemaker and consumer.

(b) The development of personal skills such as leadership, citizenship, communication service, social and human relations to enable Vocational Education students to qualify for and perform well in the occupational specialty area.

(c) The development of attitudes and abilities essential for success in the home, community, and world of work.

Local activities of youth groups are considered an integral part of the Vocational Education program and are sponsored by the local educational agency. The youth organizations are sponsored (governed or administered) at State level by the Vocational-Technical Education Service, Michigan Department of Education, in cooperation with teacher education institutions and related professional organizations. The youth programs of Vocational Education are supervised by Vocational Education personnel locally and at the State level. The State and local programs of activities of each organization are determined by the needs of youth; by the objectives of Vocational Education programs; and by the recommendations of the National Organization.

The organizations include: Business and Office Education Clubs/Office Education Association, Distributive Education Clubs of America, FFA, Future Homemakers of America, and Vocational Industrial Clubs of America. Local plans for Vocational Education should include adequate provisions for the operation of each recognized vocational student organization appropriate for the respective vocational instructional program(s) offered by each school.

13.0 Vocational Education Programs for Native Americans

The Michigan Department of Education will work cooperatively with the State Indian Education Advisory Council, the Commission on Indian Affairs, the Michigan Inter-Tribal Council and eligible recipients to assure that Indian Tribal organizations receiving funds under the Commissioner's discretionary programs, under authority of Section 103 (A) (1) (B) of the Act will not be excluded from participation in vocational education programs administered by the State. Native Americans who do not reside on reservations will have access to vocational education programs in the areas of their residence.

14.0 National Center for Education Statistics

The Michigan Department of Education will cooperate with the Administrator of the National Center for Education Statistics, Health, Education, and Welfare, in supplying information and complying in its reports with the information elements and definition requirements, as specified in Section 161 (a) of the Act.

15.0 Vocational Education Programs for Displaced Homemakers and Other Special Groups

15.1 Types of Programs

The Michigan Department of Education will use subpart 2 funds to provide vocational programs which include:

a. Organized educational programs necessary to prepare for employment, including acquisition maintenance and regain of equipment.

b. Special courses in how to seek employment.

c. Provision for placement services.

15.11 **Eligibility**

a. Homemakers seeking employment because of dissolution of marriage.

b. Single heads of households who lack adequate job skills.

c. Homemakers and part-time workers who wish to secure a full-time job.

d. Men or women who are in jobs traditionally considered jobs for their sex who wish to seek employment in jobs not traditionally considered jobs for their sex.

16.0 **Personnel to Reduce Sex Bias**

It is the policy of the Michigan Department of Education that no person on the basis of race, color, religion, national origin or ancestry, age, sex, or marital status shall be discriminated against, excluded from participation in, be denied the benefits of, or be otherwise subjected to discrimination under any federally funded program or activity for which the Michigan State Board of Education is responsible or for which it receives federal financial assistance from the Department of Health, Education and Welfare. This policy of nondiscrimination shall also apply to otherwise qualified handicapped individuals.

For the purposes of administering Title IX, the State Board shall assure that affirmative steps are taken to eliminate sex bias, sex stereotyping, sex discrimination in all programs, services, and activities in vocational education.

The Michigan Department of Education will assign such full time staff as may be necessary to assist the State Board in fulfilling various purposes, including:

(a) Take action necessary to create awareness of programs and activities in vocational education designed to reduce sex bias and sex stereotyping in all vocational education programs, including assisting the State Board in publicizing the public hearings on the State Plan.

(b) Gather, analyze, and disseminate data on the status of men and women students and employees in vocational education programs of the State.

(c) Develop and support actions to correct problems brought to the attention of this personnel through activities carried out under paragraph (b) and #104.76, including creating awareness of the Title IX complaint process.

(d) Review the distribution of grants and contracts by the State Board to assure that the interests and needs of women are addressed in all projects assisted under this Act.

(e) Review all vocational education programs (including work-study programs, cooperative vocational education programs, apprenticeship programs, and the placement of students who have successfully completed vocational education programs) in the State for sex bias.

(f) Monitor the implementation of laws prohibiting sex discrimination in all hiring, firing, and promotion procedures within the State relating to vocational education.

(g) Assist local educational agencies and other interested parties in the State in improving vocational education opportunities for women.

(h) Make available to the State Board, the State Advisory Council, the National Advisory Council on Vocational Education, the State Commission on the Status of Women, the Commissioner, and the general public, including individuals and organizations in the State concerned about sex bias in vocational education, information developed under this section.

(i) Review the self-evaluations required by Title IX.

(j) Review and submit recommendations with respect to overcoming sex bias and sex stereotyping in vocational education programs for the five-year State Plan and its annual program plan prior to their submission to the Commissioner for approval.

Specific funded activities relating to the elimination of sex bias, sex stereotyping and sex discrimination in programs and services may be found in Part II Annual and Long Range Program Plan Provisions.

17.0 Incentives for Sex Equity

Recruitment Models for the elimination of Sex Role Stereotyping will be funded so that several local districts and community colleges can demonstrate a fully functioning model. The selection of agencies will be determined through a Request for Proposal process.

The availability of good sex equity materials for use in the vocational classroom will be improved with (1) the identification of such materials, (2) the distribution of these materials to vocational teachers and (3) the development of a plan for its utilization. Through a formula grant each local vocational program can avail themselves of these materials.

When available sex equity guidance resources are judged inadequate or require improvement, funds will be expended for improvement and distribution. This can be done as a part of existing sex equity projects or as an independent operation.

Sex equity incentives at the postsecondary level may be found under Section 2.27.

18.0 Support Services for Women

The Michigan Department of Education will use Subpart 2 funds under its basic grant, when included in the annual program plan, for support services for women who enter vocational education programs designed to prepare individuals for employment in jobs which have been traditionally limited to men.

18.1 Types of Support Services

(a) Counseling

(b) Job Development

(c) Job Follow-up Support

PART II
ANNUAL AND LONG-RANGE PROGRAM PLAN PROVISIONS

PART II
ANNUAL AND LONG-RANGE PROGRAM
PLAN PROVISIONS

INTRODUCTION OF STATE PLAN — ANNUAL LONG-RANGE PLAN

Contained in the long-range plan are goals and objectives for the delivery of vocational education in the State of Michigan. Each objective has related to it criteria that are provided as a means of identifying some of the major outcomes that indicate progress towards meeting the objective. A criterion has five-year measures of success to express the direction and magnitude that vocational education is expected to progress over the next five years.

Vocational education in the State of Michigan is viewed as a process of deliverying services to the children and adults of the State by numerous and varying delivery systems. Therefore, it is the desire of those involved in vocational education to express goals and objectives to all of the various types of delivery systems. Based upon this belief, the goals and objectives contained in the document that follows are written to encompass any of the various agencies that provide vocational and technical education. This Plan is not, therefore, organized according to levels of delivery but rather according to the major goals and objectives for vocational education in the State of Michigan.

A given goal with its objective and criteria describes the planned direction for vocational education in Michigan. Each criterion statement has words that are underlined. The underlined words indicate the unit of measure in the success measures columns. In the content of the long-range plan are symbols or abbreviations used to permit a concise format. Included in this list of symbols are: Sec. Secondary; P-Sec. Postsecondary; 4-Yr. Four-year institutions; HS. High School; AC. Area Center; ISD. Intermediate School District; CC. Community College; JHS. Junior High School; and N/A. Not Available. The symbol "( )" around dollar amounts indicates that the funds also occur in other sections of the Plan. The code number expressed in the Resources. Federal column, i.e., "(120-1)" indicates the category listed on the "Estimated Allocation of Funds — Fiscal Year 1980" and the section of the Act authorizing the fund usage. Dollars denoted by an askerisk indicate carryover funds

The summary of annual budget projections and activities in this Plan has been designed to respond to needs identified in the public meetings and in the new Federal legislation. These activities reflect priorities. The extent to which they will be able to be carried out will be reflected in the financial resources made available.

One fiscal priority which is firmly established by State Board action and reflected in this Plan is the acceleration of facility development in the Detroit Public School System. A minimum of five million dollars of the budgeted construction monies will be utilized to assist in this effort.

Final allocation of funds in this Plan will be dependent upon Federal appropriation and returned funds. If additional funds become available, priority for Section 120 funds will be the development and equipping of area centers. Priority for Section 130 funds will be vocational Guidance and Counseling. Any categorical funds, i.e. Disadvantaged, Handicapped, Consumer and Homemaking (Part F) will be utilized for the legislated purpose.

In recent years the increase of Federal resources has not increased as much as the commitment of State and local resources for Vocational Education. Additional support, to keep pace with the needs, will be necessary from all sources in the coming years.

Funds utilized from Section 102D of the Act will be used at the State level for staff, contractual supplies, services and materials, travel, and data analysis.

Funds utilized from Section 120 or 130 of the Act, in addition to the described activities, will also be utilized for supervision and administration of the program which will include planning, data collection and evaluation.

Continuing efforts will be made to obtain maximum coordination with other agencies at both the State and local level for usage of available resources.

Examples of Codes identified under "Estimated Allocation of Funds for 1980

	Projected Activity FY 1980	Federal Funds
1.	Fund the development of district plans for the purpose of assessing unmet needs and to develop a plan to respond to identified needs of persons who are single heads of households and/or homemakers who wish to secure employment.	$50,000 * (120-3-L)

120 — Refers to Section 120 of Act — Program Operation

3 — Symbol for Postsecondary Funds

L — Refers to Part L Section of 120 — Special Services to Homemakers

Dollars denoted by an asterisk indicate carryover funds.

GOAL: I. Persons with differing sex, age, racial/ethnic background, socio-economic status, academic disadvantage, economic disadvantage, limited English speaking ability, physical and mental capabilities, and geographical location will have access to vocational-technical education and training or retraining and shall not be excluded from such programs because of any distinguishable personal characteristics.

OBJECTIVE: IA. State and eligible recipient policies will assure the equality of vocational education opportunity for persons of differing sex and racial/ethnic characteristics.

LONG RANGE PLAN FY 1978-82

Criteria	Ed. Level	Type of Institution	Need	Current (1978)	Success Measures				
					1978	1979	1980	1981	1982
1. The service area (statewide) sex and racial/ethnic characteristics of persons enrolled in vocational-technical education will be in proportion to those characteristics found in the student population for the same age groups.	Sec P-Sec Adult	HS CC AC ISD							
Male			164,006	164,006			164,006	164,006	164,006
Female			215,625	215,625			215,625	215,625	215,625
Black			56,139	56,139			56,139	56,139	56,139
White			312,969	312,969			312,969	312,969	312,969
Native American			2,277	2,277			2,277	2,277	2,277
Latino			6,324	6,324			6,324	6,324	6,324
Oriental			1,922	1,922			1,922	1,922	1,922
2. The sex racial/ethnic characteristics of persons completing vocational-technical education will be in proportion to those characteristics found in the service area (statewide) student population.	Sec P-Sec Adult	HS CC AC ISD							
Male			126,139	78,976			94,771	104,248	114,672
Female			161,894	101,363			121,635	133,798	147,177
Black			47,280	27,103			35,523	39,075	42,982
White			234,983	147,123			176,547	194,201	213,621
Native American			1,760	1,103			1,323	1,455	1,600
Latino			5,975	3,742			4,490	4,939	5,432
Oriental			2,024	1,268			1,521	1,673	1,840
3. Eligible recipients which are operating approved vocational-technical education programs will develop and implement written guidelines and policies to protect all persons from exclusion from vocational-technical education programs.	Sec P-Sec Adult	HS AC ISD CC 4-Yr	NA	NA			100%	100%	100%

ANNUAL PLAN FY 1980

Projected Activities FY 1980	Related Criteria	Resources		
		Federal	State	Local
1. Provide materials that will facilitate the implementation of sex equity.	IA-1-2	200,000 (120-a)	-0-	-0-
2. Implement recruitment and inservice models to increase equitable representation of both sexes in occupational programs.	IA-1-2	75,000 (134)	-0-	-0-
		275,000 (120j)	-0-	-0-

OBJECTIVE: IB. Eligible recipient policies will promote the equality of vocational education opportunity for students of differing physical and mental capabilities.

LONG RANGE PLAN FY 1978-82

Criteria	Ed. Level	Type of Institution	Need	Current	Success Measures				
					1978	1979	1980	1981	1982
1. The opportunity for enrollment of eligible handicapped students in vocational education programs will be equal to the number of students who can benefit from instruction in such programs as determined by an educational planning and placement committee.	Sec	HS AC ISD	12,000	3,180			3,907	4,000	4,100
2. The number of eligible handicapped persons enrolled in community college vocational technical education programs will be equal to the number of persons identified by the Bureau of Rehabilitation who can benefit from instruction in such programs.	P-Sec Adult	CC	6,000	843			900	95	1,049

ANNUAL PLAN FY 1980

Projected Activities FY 1980	Related Criteria	Resources		
		Federal	State	Local
1. Provide paraprofessionals, remedial teachers, tutors, certified classroom teaching staff, and support services and activities to meet the special needs of handicapped persons.	IB-1	1,902,242 (120-1) (130-1)	-0-	1,902,242
2. Provide paraprofessionals, remedial teachers, tutors, certified classroom teaching staff, and support services and activities to meet the special needs of postsecondary handicapped persons.	IB-2	412,753 (120-1) (130-1)	-0-	412,753

OBJECTIVE: IC. Eligible recipient policies will encourage the participation of students with academic and other socio-cultural disabilities in vocational education programs.

LONG RANGE PLAN FY 1978-82

Criteria	Ed. Level	Type of Institution	Need	Current	Success Measures				
					1978	1979	1980	1981	1982
1. Eligible disadvantaged persons not in areas of high concentration of youth dropout will be enrolled in vocational education in the same proportion to the disadvantaged population ratio found in the 9-12 school population.	Sec	HS AC ISD	41,148	9,785			10,598	10,900	11,000
2. Eligible disadvantaged persons in community college vocational-technical education programs will be enrolled in the same proportion to the disadvantaged population ratio found in the service area.	P-Sec Adult	CC	5,652	1,809			1,899	1,930	1,960
3. Eligible disadvantaged persons from areas of high concentration of youth dropout will be enrolled in vocational education in the same proportion to the disadvantaged population ratio found in the 9-12 school population.	Sec	AC HS ISD	13,200	1,108			1,163	1,200	1,250

ANNUAL PLAN FY 1980

Projected Activities FY 1980	Related Criteria	Resources		
		Federal	State	Local
1. Provide paraprofessionals, remedial teachers, tutors, certified classroom teachers, staff and support services and activities to meet the special needs of disadvantaged persons.	IC-1	3,804,484 (120-2) (130-2)	-0-	3,804,484
2. Provide paraprofessionals, remedial teachers, tutors, certified classroom teaching staff, and support services and activities to meet the special needs of postsecondary disadvantaged persons.	IC-2	659,385 (120-2) (130-2)	-0-	659,385
3. Provide paraprofessional, remedial teachers, tutors, and certified classroom teachers to meet the special needs of disadvantaged persons.	IC-3	808,381 (140)	-0-	-0-

OBJECTIVE: ID. Secondary districts will provide access to a comprehensive vocational education program of 15 or more wage earning O. E. Codes compatible with employment opportunities regardless of geographical location.

LONG RANGE PLAN FY 1978-82

Criteria	Ed. Level	Type of Institution	Need	Current	Success Measures				
					1978	1979	1980	1981	1982
1. The number of districts providing access to 15 or more wage earning O. E. Codes will increase.	Sec	HS AC	530	239			269	294	319

ANNUAL PLAN FY 1980

Projected Activities FY 1980	Related Criteria	Resources		
		Federal	State	Local
1. Implement area vocational center construction/renovation projects.	ID-1	5,500,000 (120-e)	-0-	5,500,000
2. Provide program operation funds for the support of secondary vocational education programs.	ID-1	400,000 (120-a)	28,200,000	49,794,550

OBJECTIVE: IE. Vocational-technical education will be available to all employed persons who have graduated or left high school and who need to be retrained in order to maintain or achieve stability in their occupation.

LONG RANGE PLAN FY 1978-82

Criteria	Ed. Level	Type of Institution	Need	Current	Success Measures				
					1978	1979	1980	1981	1982
1. The number of people enrolled in courses to retrain individuals identified in the district annual plan as needing retraining will increase.	P-Sec Adult	CC 4-Yr	86,000	60,000			71,248	82,208	86,000
2. The number of apprenticeship students enrolled in courses designed for occupations will be consistent with the demand for journeymen by industry and labor.	P-Sec	CC	Specified by Industry and Labor	7,019			9,382	10,320	11,640

ANNUAL PLAN FY 1980

Projected Activities FY 1980	Related Criteria	Resources		
		Federal	State	Local
1. Fund eligible community colleges for providing tuition free occupational education to displaced homemakers and individuals seeking non-traditional job training.	IE-1	100,000 (120-3-L)	208,000	104,000
2. Fund eligible agencies for the direct costs of providing retraining courses consistent with the district annual plan.	IE-1	150,000 (120-3)	-0-	150,000
3. Review, approve, and process apprenticeship standards and agreements consistent with the Bureau of Apprenticeship and Training, U. S. Department of Labor, and the Veterans Training Unit, Adult Extended Learning Service, Michigan Department of Education.	IE-2	-0-	-0-	-0-

OBJECTIVE: IF. Limited English speaking persons will be provided the opportunity to enroll in vocational education programs.

LONG RANGE PLAN FY 1978-82

Criteria	Ed. Level	Type of Institution	Need	Current	Success Measures				
					1978	1979	1980	1981	1982
1. Limited English speaking persons will be enrolled in vocational education in proportion to the English/limited English speaking person ratio found in the statewide population for the same age group.	Sec	HS AC ISD	1,102	117			146	183	229
	P-Sec	CC 4-Yr	734	82			103	129	161

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Projected Activities FY 1980	Related Criteria	Resources		
		Federal	State	Local
1. Provide support services including recruitment, counseling, and language support for limited English speaking persons including migrants in vocational education programs.	IF-1	150,000 (120-2) (130-2)	-0-	150,000

OBJECTIVE: IG. Establish a delivery system which increases the opportunity for students in alternative education programs to receive vocational education.

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Criteria	Ed. Level	Type of Institution	Need	Current	Success Measures				
					1978	1979	1980	1981	1982
1. The number of school age students in court appointed residential facilities enrolled in vocational education programs will increase.	Sec	Social Service	600	54			68	85	106

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Projected Activities FY 1980	Related Criteria	Resources		
		Federal	State	Local
1. Provide services to students in court appointed residential facilities through regularly funded projects.	IG-1	(50,000) (120-2)	-0-	-0-

GOAL: II. All local vocational-technical education programs will be of such quality as to assure that all students are provided learning experiences which are realistic and sufficient in light of their occupational objective.

OBJECTIVE: IIA. Persons completing a vocational-technical education program shall possess the competencies required for success in gaining and maintaining employment in the field trained or in a related occupation, or in continuing their training in a related program of study.

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Criteria	Ed. Level	Type of Institution	Need	Current	Success Measures				
					1978	1979	1980	1981	1982
1. Local surveys of employers will reveal that vocational education completers employed full-time are job ready at initial employment.	Sec	HS AC	200	-0-			200	200	200
2. Within ten months of program completion, vocational education program completers will be employed in the field trained or in a related occupation, or continuing their training in a related program of study.	Sec	HS AC	65%	53%			53%	54%	55%
3. Enrollment and follow-up data will be gathered on postsecondary occupational students under the Vocational Education Data System (VEDS) requirements indicating how many students are employed in the field trained or in a related occupation, or are continuing their training.	P-Sec Adult	CC 4-Yr					DATA COLLECTION IN PROGRESS		
4. The placement rate from the Longitudinal study will reveal that vocational education completers are maintaining employment in the field trained or in a related occupation or continuing their training in a related program of study.	Sec	HS AC					Design Study	61%	---

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Projected Activities FY 1980	Related Criteria	Resources		
		Federal	State	Local
1. To provide support activities necessary to implement an employer follow-up system.	IIA-1	50,000* (131)	-0-	-0-
2. Support follow-up of secondary graduates through specific data processing activities by a support center.	IIA-2	33,920 (120-0)	-0-	-0-
		8,480 (130-a)	-0-	-0-
3. To establish the parameters and design of the longitudinal follow-up study of secondary vocational education completers.	IIA-3	10,000* (131)	-0-	-0-
4. Provide assistance to the community colleges for the implementation of the Vocational Education Data System (VEDS) in all 29 community colleges, providing quantitative enrollment and follow-up data for evaluation.	IIA-3	141,600 (120-3)	-0-	-0-
		35,400 (130-3)	-0-	-0-

OBJECTIVE: IIB. All persons will have access to programs providing skills in consumer and home economics education.

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Criteria	Ed. Level	Type of Institution	Need	Current	Success Measures				
					1978	1979	1980	1981	1982
1. All eligible recipients will provide consumer home economics education programs for secondary students.	Sec	HS	530	387			430	440	450
2. The number of secondary students (grades 9-12) enrolled in consumer home economics will increase.	Sec	HS	649,418	91,295			91,295	90,800	90,000
3. The number of eligible recipients providing consumer home economics programs for out-of school youth and adults will increase.	Sec P-Sec Adult	HS CC ISD	53 3 5	11 1 1			20 2 1	22 3 3	25 3 5
4. The number of out-of school youth and adults completing courses in consumer home economics will increase.	Sec P-Sec Adult	HS CC	Undeter-minable	728			1,000	1,200	1,500
5. The number of eligible recipients in economically depressed areas or areas with high rates of unemployment that recieve funds to provide special services in consumer home economics to youth (7-12) will increase.	Sec	Jr. HS HS	321	13			15	18	20
6. The number of youth (grades 7-12) in economically depressed areas or areas of high rate of unemployment receiving special services in consumer home economics will increase.	Sec	Jr. HS HS	57,046	2,000			2,350	2,360	2,370
7. The number of eligible recipient districts in economically depressed areas or areas with high rates of unemployment that receive funds to provide special services to consumer home economics to out-of school youth and adults will increase.	Sec P-Sec Adult	HS ISD CC	321	11			7	7	7

OBJECTIVE: IIB. All persons will have access to program providing skills in consumer and home economics education.

LONG RANGE PLAN FY 1978-82

Criteria	Ed. Level	Type of Institution	Need	Current	Success Measures				
					1978	1979	1980	1981	1982
8. The number of out-of school youth and adults in economically depressed areas or areas with high rate of unemployment receiving special services in consumer home economics will increase. (Program)	Sec Adult	HS CC	Undeter-minable	1,875			1,700	1,700	1,700

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Projected Activities FY 1980	Related Criteria	Resources		
		Federal	State	Local
1. Provide funds for maintaining, expanding, and initiating new programs in consumer and home economics education.	IIB-1-4	807,254 (150)	-0-	12,444,122
2. Provide funds for strengthening and initiating new programs in consumer home economics in economically depressed areas or areas of high unemployment.	IIB-5-8	700,000 (150)	-0-	100,000
3. Provide state leadership for supervision and administration of consumer home economics programs.	IIB-1-8	135,000 (150)	-0-	-0-
4. Provide improved communication among home economics educators in Michigan. (Phase III)	IIB-1-8	18,854 (150)	-0-	-0-
5. Provide funds for continuing the inservicing of home economics and administrators to help insure quality in planning and implementing consumer home economics programs for all segments of the population. (Ancillary)	IIB-1-8	70,000 (150)	-0-	-0-
6. Provide funds to conduct a statewide assessment study of the status and effectiveness of the consumer home economics programs to all segments of the population. (Ancillary)	IIB-1-8	27,000 73,000* (150)	-0-	-0-

OBJECTIVE: IIC. Vocational-technical education instruction will be conducted in safe physical facilities adequate for the content and method of instruction and the number of students enrolled.

LONG RANGE PLAN FY 1978-82

Criteria	Ed. Level	Type of Institution	Need	Current	Success Measures				
					1978	1979	1980	1981	1982
1. Each vocational-technical education laboratory will equal or exceed the minimum standards for safety and health hazards as defined by appropriate agencies and standards such as those specified in the Michigan Industrial Occupational Safety and Health Act (Sec and P-Sec) and Bulletin #412 and its supplement.	Sec	HS AC		DATA	CURRENTLY	UNAVAILABLE			
2. Each community college will be in compliance with the Michigan Industrial Occupational Safety and Health Act.	P-Sec	CC	29	29			29	29	29
3. New secondary vocational education programs will have adequate quality and quantity of equipment to permit students to achieve minimum program performance objectives.	Sec	HS AC	1,625	325			325	325	325
4. Approved postsecondary occupational programs will have sufficient quality and quantity of instructional equipment to permit students to achieve instructional performance objectives.	P-Sec	CC	1,388	179			179	179	179

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Projected Activities FY 1980	Related Criteria	Resources		
		Federal	State	Local
1. Fund equipment for new secondary vocational education programs.	IIC-3	1,529,976 (120a)	-0-	1,529,976
2. Fund postsecondary instructional equipment in sufficient quantity and quality for each approved occupational program.	IIC-4	1,094,900 (120-3)	-0-	1,094,900

OBJECTIVE: IID. Each eligible recipient offering vocational education programs will make available to students vocational student organizations which are integral to the instructional program and will promote membership of persons of differing sex, racial/ethnic, disadvantaged and handicapped characteristics.

LONG RANGE PLAN FY 1978-82

Criteria	Ed. Level	Type of Institution	Need	Current	Success Measures				
					1978	1979	1980	1981	1982
1. There will be an increase in the number of eligible recipients with at least one vocational student organization.	Sec P-Sec	HS AC ISD	345	300			325	335	345
2. There will be an increase in the number of vocational education student organization chapters.	Sec P-Sec	HS AC ISD	700	490			600	650	700
3. There will be an increase in the number of students who are members of vocational student organizations.	Sec	HS AC ISD	27,000	22,000			23,750	25,500	27,000
4. The sex, racial/ethnic, disadvantaged and handicapped characteristics of persons who are members of vocational student organizations will be in proportion to those characteristics found in the students enrolled in the respective vocational education programs.	Sec Adult	HS AC ISD							
Male			45%	48%			47%	46%	45%
Female			55%	52%			53%	54%	55%
Black			13%	8.4%			9.4%	11%	13%
White			85.2%	90.3%			89.2%	87.3%	85.2%
Native American			.5%	.6%			.5%	.5%	.5%
Latino			1.1%	.6%			.8%	1.0%	1.1%
Oriental			.2%	.1%			.1%	.2%	.2%
5. Each local vocational education student chapter will implement written guidelines and policies to assure equal opportunity for participation and membership in student organizations.	Sec	HS AC ISD	700	0			570	650	700

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Projected Activities FY 1980	Related Criteria	Resources		
		Federal	State	Local
1. Establish grants with five (5) teacher education institutions and one intermediate school district in the Upper Peninsula for leadership and specific services to the secondary vocational student organizations.	IID-1-5	298,>00 (120-a)	-0-	-0-
2. Provide State leadership through grant agreements for the development, implementation, and operation of postsecondary student organization programs (Office Education Association, Distributive Education Clubs of America.)	IID-3-4	44,000 (120-3)	-0-	-0-

OBJECTIVE: IIE. Vocational-technical education administrative, counseling, placement, and teaching personnel will be provided accessibility to educational experiences in order to perform their professional roles.

LONG RANGE PLAN FY 1978-82

Criteria	Ed. Level	Type of Institution	Need	Current	Success Measures				
					1978	1979	1980	1981	1982
1. School placement personnel will be trained to deliver placement services.	Sec P-Sec	AC	3,000	200			550	675	750
2. Preservice and Inservice vocational teacher education programs will reflect current statewide and national needs and priorities in vocational-technical education.	P-Sec	4-Yr	17	0			9	10	11
3. Assistance will be provided to those persons desiring regular vocational teacher certification.	P-Sec	4-Yr	1,100	0			500	600	700
4. Opportunity will be provided for secondary vocational instructors to receive training to implement competency based education.	Sec	AC HC	6,600	2,350			6,200	6,500	6,600
5. Full and part-time community college vocational-technical education instructors and administrators will complete competency based education preservice or in-service instruction.	P-Sec	CC	2,333 Inst. 180 Adm.	816 Inst. 0			1,981 Inst. 117 Adm.	2,214 Inst. 153 Adm.	2,333 Inst. 180 Adm.
6. Individuals will be informed of the availability of the Leadership Development Award and Teacher Certification Fellowship Programs.	Sec P-Sec	4-Yr HS AC	2,000	600			600	600	600
7. The number of eligible recipients with personnel who receive inservice in organizing and implementing career guidance programs will increase.	Sec	JHS HS AC	530	10			275	374	475
8. Staff serving special needs students will receive inservice training to meet the needs of special needs students.	Sec	HS AC ISD	2,000	1,000			1,600	1,800	2,000
	P-Sec	CC 4-Yr	250	100			175	200	250

OBJECTIVE: IIE. Vocational-technical education administrative, counseling, placement, and teaching personnel will be provided accessibility to educational experiences in order to perform their professional roles.

LONG RANGE PLAN FY 1978-82

Criteria	Ed. Level	Type of Institution	Need	Current	Success Measures				
					1978	1979	1980	1981	1982
9. There will be an increase in the number of local teachers receiving curriculum materials.	Sec P-Sec	CC 4-Yr HS AC	8,000	1,000			1,500	2,000	3,000
10. Vocational-Technical Education Service professional staff and local administrators will be provided with opportunities for professional growth and development.	Sec P-Sec	HS CC ISD AC 4-Yr.	244	244			244	244	244
11. Vocational teachers will receive assistance in increasing technical competency levels.	Sec	HS ISD	1,680	0			150	200	250
12. Vocational teacher education personnel will be given assistance for professional development activities.	P-Sec	4-Yr	150	0			150	150	150
13. Secondary vocational personnel will receive training to implement bilingual guidance and counseling inservice materials.	Sec	HS CC AC 4-Yr ISD Jr. HS	1,400	0			100	200	250

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Projected Activities FY 1980	Related Criteria	Resources		
		Federal	State	Local
1. Develop a placement personnel training program for use by local school staff delivering school based placement services.	IIE-1	62,500 (134)	-0-	-0-
2. Provide grants to vocational teacher education to assist in the updating of preservice programs and in meeting professional development needs.	IIE-2&3	90,000 (135)	-0-	-0-
3. Continue an Occupational Competency Testing Center to help vocational education instructors verify their occupational skills and acquire college credit for out-of-school learning experiences.	IIE-3	11,800 48,200* (135)	-0-	-0-
4. Provide competency-based education grants and/or technical assistance to educational agencies for the purpose of inservicing Vocational Education staff.	IIE-4	25,000 (135)	-0-	-0-
5. Provide Competency-Based Education for all community college instructors according to the institution's plan.	IIE-5	15,000 (133-3)	-0-	30,000
6. Provide counselor inservice programs for persons of limited English speaking ability.	IIE-13	75,000 (130-2)	-0-	-0-
7. Assist in planning and conducting an annual Vocational-Technical Conference.	IIE-1 - 13	10,000 (135)	-0-	-0-
8. Provide a vocational materials center which includes the latest curriculum innovations.	IIE-9	50,000 (133)	-0-	-0-
9. Distribute brochures and letters announcing the availability of the Leadership Development Awards and the Teacher Certification Fellowships.	IIE-6	-0-	-0-	-0-
10. Inservice workshops and individualized professional development activities will be conducted on a regular basis throughout the State. A business/industry/labor/education linkage will be supported to plan and secure training opportunities for vocational teachers.	IIE-10 - 12	50,000 (135)	-0-	-0-
11. Provide a grant to a vocational teacher education institution to promote coordination and communication including an annual Teacher Education Conference and inservice activities.	IIE-2 & 12	60,000 (135)	-0-	-0-
12. Update current Michigan Minimum Performance Objectives in Data Processing.	IIE-9	10,000 (133)	-0-	-0-
13. Update current Michigan Minimum Performance Objectives in Distributive Education.	IIE-9	8,000 (133)	-0-	-0-
14. Update current Michigan Minimum Performance Objectives in Health Occupations Cluster.	IIE-9	10,000 (133)	-0-	-0-
15. Update current Michigan Minimum Performance Objectives in Food Service and Child Care.	IIE-9	15,000 (133)	-0-	-0-
16. Provide inservice training designed to improve the skills of vocational staff to meet the needs of special needs students.	IIE-8	45,000 (130-1) 30,000 (130-2)	-0-	-0-
17. Provide inservice workshops for Industrial Arts teachers.	IIIC-2	(20,000) (120-i)	-0-	-0-
18. Conduct an inservice training program for distributive educators in the use of competency-based institutional materials and systems.	IIE-9	20,000 (135)	-0-	-0-
19. Provide support for development and implementation of Life Role Competencies.	IIE-9 & 10	50,000 (135)	-0-	-0-

OBJECTIVE: IIF. Vocational-technical education programs and courses will be articulated to reduce unnecessary duplication of services, to encourage efficient student learning, and to increase the efficient use of available local, State and Federal financial resources.

LONG RANGE PLAN FY 1978-82

Criteria	Ed. Level	Type of Institution	Need	Current	Success Measures				
					1978	1979	1980	1981	1982
1. A current set of performance objectives based on task lists and criteria will be available as a basis for developing curriculum articulation agreements.	Sec P-Sec	HS AC CC	400	50			95	131	167
2. Articulated programs will be in operation between secondary and postsecondary institutions which conform to an established model.	Sec P-Sec	HS AC CC	230	15			102	147	190

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Projected Activities FY 1980	Related Criteria	Resources		
		Federal	State	Local
1. Grant for the development of vocational-technical education curriculum as a member of Vocational-Technical Education Consortium of States.	IIF-1	61,835 (133)	-0-	-0-
2. Support exemplary projects to facilitate curriculum articulation in vocational education.	IIF-2	337,500 (135)	-0-	100,000

OBJECTIVE: IIG. Develop and demonstrate new curricula and methods to improve the quality of vocational-technical education classroom delivery.

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Criteria	Ed. Level	Type of Institution	Need	Current	Success Measures				
					1978	1979	1980	1981	1982
1. Funded projects will demonstrate effective strategies for providing appropriate occupational training to handicapped, disadvantaged, and limited English speaking students.	Sec P-Sec Adult	HS AC CC	6	4			6	6	6
2. Postsecondary curricula will be developed for new and emerging occupations related to alternative energy sources (i.e., solar, wind, and coal) consistent with Michigan's projected employment needs.	P-Sec	CC	3	0			Unknown	Unknown	Unknown
3. Funded projects will develop and test model curricula for delivery of appropriate vocational education related to new and emerging occupations.	P-Sec	CC	15	0			3	3	3

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Projected Activities FY 1980	Related Criteria	Resources		
		Federal	State	Local
1. Disseminate new methods of, and materials used in, the modification of training sites.	IIG-1	(100,000) (133-1)	-0-	-0-
2. Identify, plan, and develop energy education certificate and associate degree programs involving renewable technologies and appropriate energy conservation programs.	IIG-2	(30,000) (133-3)	-0-	-0-
3. Curricula will be developed for the new and emerging occupations related to postsecondary education institutions.	IIG-3	(10,000) (133-3)	-0-	-0-

GOAL: III. All pre-vocational/exploration, career guidance and placement programs will be coordinated with local vocational-technical education programs so that each student may make an informed and realistic occupational choice and have access to quality placement programs.

OBJECTIVE: IIIA. Each district operating a vocational-technical program will be provided with vocational guidance and counseling materials and programs to help students formulate a career development plan consistent with their interests and abilities.

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Criteria	Ed. Level	Type of Institution	Need	Current	Success Measures				
					1978	1979	1980	1981	1982
1. The number of high schools, post-secondary institutions and other public agencies which provide for student access to an occupational information service giving career descriptions, up-to-date employment and wage data, and information on post-high training and educational opportunities will increase.									
a. Secondary Schools	Sec	AC HS JHS	1,300	935			1,100	1,200	1,300
b. Four-Year Colleges	P-Sec Adult	4-Yr	68	15			30	50	68
c. Community Colleges	P-Sec Adult	CC	29	26			29	29	29
d. Employment Service Offices (MESC/WIN)	P-Sec Adult	NA	163	46			163	163	163
e. CETA Prime Sponsors	P-Sec Adult	NA	22	15			22	22	22
f. Vocational Rehabilitation Office	Sec P-Sec Adult	NA	42	37			42	42	42
g. Correctional institutions	P-Sec Adult	NA	26	16			19	23	26
h. Veterans Programs	P-Sec Adult	NA	15	3			7	11	15
i. Public Libraries	Sec P-Sec Adult	NA	357	43			60	100	200
2. The number of schools which provide for student access to a career resource center will increase.	Sec	HS JHS	1,300	31			58	83	100
3. The number of high schools and post-secondary institutions which provide guidance and counseling materials and programs related to the changing work patterns of women and men will increase.	Sec	HS AC	1,300	20			70	170	270
	P-Sec	CC 4-Yr	29	10			15	20	29

OBJECTIVE: IIIA. Each district operating a vocational-technical program will be provided with vocational guidance and counseling materials and programs to help students formulate a career development plan consistent with their interests and abilities.

LONG RANGE PLAN FY 1978-82

Criteria	Ed. Level	Type of Institution	Need	Current	Success Measures				
					1978	1979	1980	1981	1982
4. Vocational guidance personnel will have access to a model and materials to implement LEA vocational guidance activities.	Sec Adult	HS CC	3,500	-0-			250	375	500

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Projected Activities FY 1980	Related Criteria	Resources		
		Federal	State	Local
1. Support the development and implementation of the Michigan Occupational Information System.	IIIA-1	341,413 (134)	-0-	-0-
2. Support of Career Resource Centers at the secondary level, Middle School and Junior High School.	IIIA-2	338,529 (134)	-0-	297,228
3. Develop materials and conduct inservice related to changing work patterns of women and men.	IA-1	(75,000) (134)	-0-	-0-
4. Provide a grant to develop a vocational guidance model, and conduct appropriate inservice activities.	IIIA-4 IIE-7	60,000 (134)	-0-	-0-

OBJECTIVE: IIIB. Students completing vocational-technical education programs will be provided with placement services.

LONG RANGE PLAN FY 1978-

Criteria	Ed. Level	Type of Institution	Need	Current	Success Measures				
					1978	1979	1980	1981	1982
1. The percent of students completing or leaving a vocational program being served by secondary school-based job placement services will increase.	Sec	HS AC	100%	43%			49%	51%	53%

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Projected Activities FY 1980	Related Criteria	Resources		
		Federal	State	Local
1. Support regional and local job placement services at the secondary level.	IIIB-1	580,668 (134) 75,331* (134)	-0-	200,000

OBJECTIVE: IIIC. Local pre-vocational programs will be of sufficient quality to provide learners with the skills, knowledges, and attitudes required for selecting and entering secondary vocational education programs.

LONG RANGE PLAN FY 1978-82

Criteria	Ed. Level	Type of Institution	Need	Current	Success Measures				
					1978	1979	1980	1981	1982
1. School districts with prevocational and vocationally certified teachers will develop and endorse written articulation agreements based upon minimum student competencies.	Sec	JHS HS	530	-0-			6	6	6
2. School districts with Industrial Arts teachers will participate in skill workshops.	Sec	JHS HS	530	-0-			40	80	200

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Projected Activities FY 1980	Related Criteria	Resources		
		Federal	State	Local
1. Prevocational Articulation: Continue implementation of pilot articulation agreements between industrial arts, home economics, business education, and agriculture prevocational teachers and secondary vocational education teachers.	IIIC-1	50,000 (120-i)	-0-	-0-

GOAL: IV. All local vocational-technical education programs will be planned, monitored, and evaluated in light of actual or anticipated employment opportunities and the demand by students for programs related to their abilities and occupational objectives.

OBJECTIVE: IVA. Vocational-technical education delivery systems will be planned to guarantee accessibility, quality, and student and employment relevancy.

LONG RANGE PLAN FY 1978-82

Criteria	Ed. Level	Type of Institution	Need	Current	Success Measures				
					1978	1979	1980	1981	1982
1. Each Career Education Planning District and its eligible recipients will develop a five-year long-range plan based upon inventories in each constituent district.	Sec	HS AC	53	-0-			53	53	53
2. Each postsecondary institution will develop a five-year long-range plan.	P-Sec	CC	29	29			29	29	29
3. Each long-range vocational-technical education plan will contain socio-economic, resource, and program plans that identify delivery decisions for five years.	P-Sec Sec	AC HS CC	100%	-0-			100%	100%	100%
4. Each Career Education Planning District or consortium of CEPDs will develop a plan for providing assistance to local educational agencies and to meet VEDS student and other data requirements.	Sec	HS	100%	-0-			50%	75%	100%

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Projected Activities FY 1980	Related Criteria	Resources		
		Federal	State	Local
1. Expertise will be identified and contracted with to assist with the development and implementation of the long-range planning model.	IVA-1	40,000* (135)	-0-	-0-
2. An inservice package will be developed and each Career Education Planning District, its eligible constituents, and Vocational-Technical Education Service staff will be inserviced on the use of the long-range planning model.	IVA-1	50,000* (135)	-0-	-0-
3. Each Career Education Planning District will prepare and submit a long-range plan for vocational education.	IVA-1	59,000* (135)	-0-	-0-
4. Each Career Education Planning District or consortium of Career Education Planning Districts will prepare and submit a plan for meeting Vocational Education Data System (VEDS) data requirements.	IVA-4	128,000 (120-o) 32,000 (130a)	-0- -0-	-0- -0-

OBJECTIVE: IVB. Local vocational-technical education programs will be approved, operated and evaluated to assure need and quality based upon student interest and opportunities for gainful employment.

LONG RANGE PLAN FY 1978-82

Criteria	Ed. Level	Type of Institution	Need	Current	Success Measures				
					1978	1979	1980	1981	1982
1. Proposed vocational-technical education programs will be reviewed based upon such factors as: (1) future employment opportunities for completers/leavers, (2) the content, organization and physical environment of instruction, (3) cost, (4) coordination with employment and training programs, and (5) the appropriateness of instruction in light of student needs and abilities.	P-Sec Sec Adult	CC AC HS	220 2,000	NA 325			125 400	172 425	220 425
2. Ongoing vocational-technical education programs will be evaluated for their effectiveness based upon such factors as: (1) historical evidence of sufficient employment of completers/leavers in related occupations, (2) evidence of employer satisfaction with training, (3) the content, organization and physical environment of instruction, (4) cost, (5) personnel, and (6) the appropriateness of instruction in light of student needs and abilities.	P-Sec Sec Adult	CC HS AC	920 4,662	NA NA			307 932	307 933	306 933

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Projected Activities FY 1980	Related Criteria	Resources		
		Federal	State	Local
1. Provide financial support for curriculum development and the conduct of employment and training needs surveys for the new community college occupational programs.	IVB-1	185,000 (133-3)	-0-	-0-
2. Implement the Michigan Community College Occupational Education Evaluation System (MCCOEES) to evaluate in qualitative and quantitative terms the effectiveness of community college occupational programs. The MCCOEES will consist of four models: a. Student flow b. Program review c. Financial analysis d. Management plan	IVB-1-2	50,000 (131-3)	-0-	-0-
3. Provide financial assistance to community colleges for defraying the costs associated with providing approved quality occupational programs/courses.	IVB-2	2,183,696 (120-3) 116,000* (120-3)	27,622,909	28,500,000
4. Encourage, approve, and support an administrative structure for quality community college occupational education.	IVB-1-2	232,000 (120-o) 58,000 (130a)	-0-	290,000
5. Develop guidelines, inservice, facilitators, and pilot test an evaluation model for secondary vocational education.	IVB-3	25,000* (135)	-0-	-0-

OBJECTIVE: IVC. State and local vocational-technical education programs will be developed in coordination with employment and training programs conducted by prime sponsors established under the Comprehensive Employment and Training Act of 1973 (CETA).

LONG RANGE PLAN FY 1978-82

Criteria	Ed. Level	Type of Institution	Need	Current	Success Measures				
					1978	1979	1980	1981	1982
1. Vocational-technical education planners at the State level and State Comprehensive Employment and Training Act personnel will develop strategies and guidelines for program coordination at the local level.	State		1	0			1		
2. Planners for each Career Education Planning District (CEPD) will consult with planners of each agency that provides training within that CEPD when developing annual and long-range plans for vocational education programs.	Sec	HS AC ISD	53 100%	NA NA			42 80%	48 90%	53 100%
3. Planners for each community college will consult at least annually with prime sponsor planners to coordinate each agency's annual and long-range plans for vocational-technical education programs.	P-Sec	CC	29	5			25	29	29

ANNUAL PLAN FY 1980

Projected Activities FY 1980	Related Criteria	Resources		
		Federal	State	Local
1. Assist in the coordination of procedures to assure local coordination of vocational-technical education programs of secondary and post-secondary institutions, private trade schools, and employment and training programs of prime sponsors established under the Comprehensive Employment and Training Act of 1973 (CETA).	IVC-1-3	CETA Funds	-0-	-0-

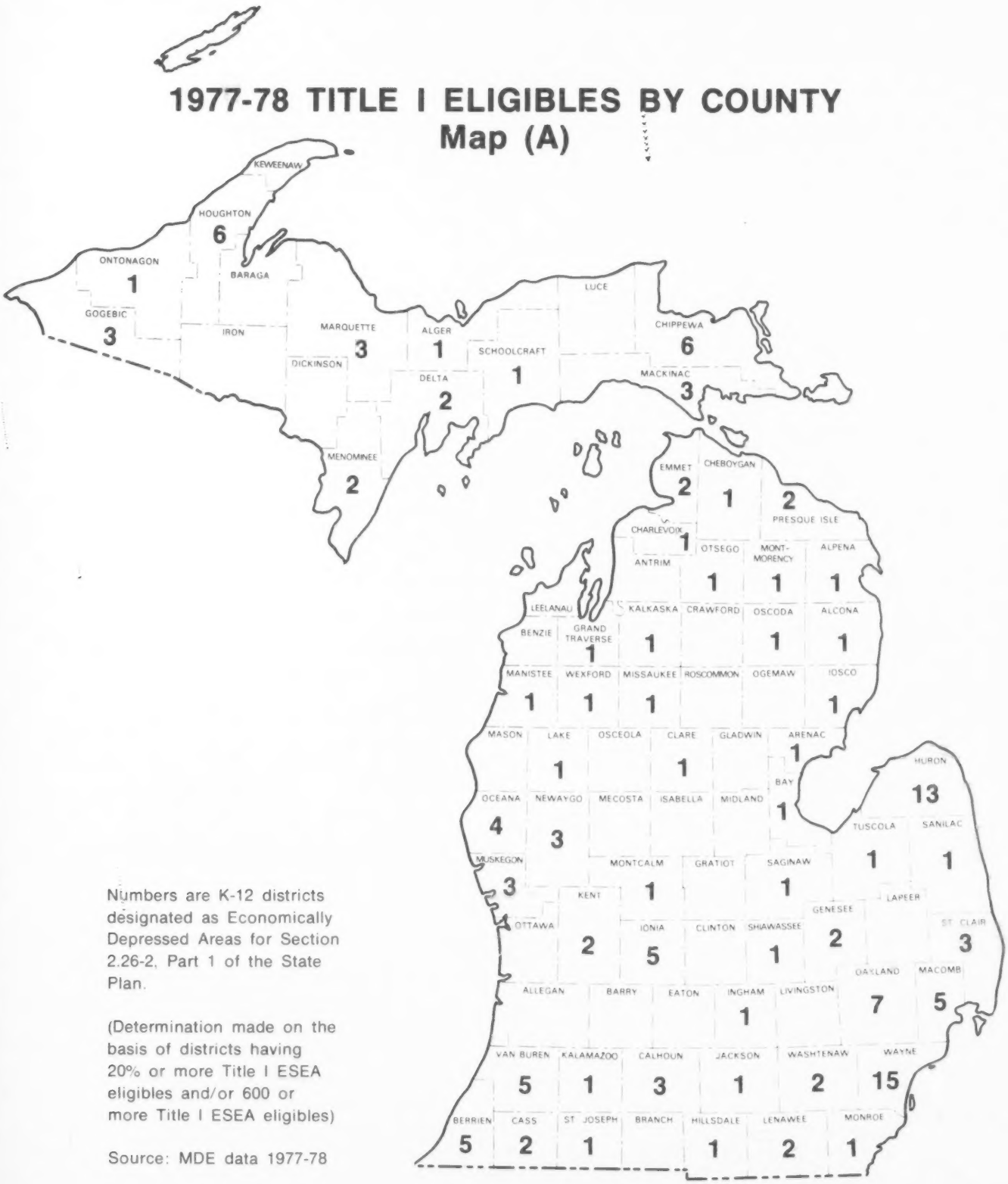
ESTIMATED ALLOCATION OF FUNDS
FISCAL YEAR 1980

PROGRAM	FEDERAL	STATE	LOCAL
Basic Program Operation - Sec. 120			
1 - Handicapped	$ 1,902,242	$ 0	$ 1,902,242
2 - Disadvantaged (LESA - $120,000)	3,804,484	0	3,804,484
3 - Postsecondary	3,730,196*	27,622,909	29,500,000
Sec. 120a Secondary Programs	2,428,876	28,200,000	51,324,526
120b Workstudy	0	0	0
120c Special Co-op Programs	0	0	0
120d Energy Education	(30,000)	0	0
120e Construction	5,500,000	0	5,500,000
120f Support of Sex Bias Elimination	50,000	0	0
120g Stipends	0	0	0
120h Placement Services	0	0	0
120i Industrial Arts	50,000	0	0
120j Support Services Women	275,000	0	0
120k Day Care	0	0	0
120L Special Services Homemakers	100,000	208,000	104,000
120m Residential Schools	0	0	0
120o State and Local Administration	1,506,720	894,991	611,729
TOTALS	$19,231,518**	$56,925,900	$92,746,981
Support - Sec. 130			
1 - Handicapped	$ 475,561	$ 0	$ 475,561
2 - Disadvantaged (LESA - $30,000)	951,121	0	951,121
3 - Postsecondary	285,400	0	30,000
Sec. 130a State and Local Administration	367,180	248,947	118,233
130b Research Coordinating Unit	200,000	33,277	0
131 Research	60,000*	0	0
132 Exemplar	0	0	0
133 Curriculum Development	154,835	0	0
134 Guidance, Counseling & Placement	1,533,441*	0	497,228
135 Personnel Training	876,500*	0	100,000
TOTALS	$ 4,546,507**	$ 282,224	$ 2,172,143
Special Disadvantaged - Sec. 140	$ 808,381	$ 0	$ 0
Consumer and Homemaking - Sec. 150			
Operations	$ 807,254	$ 0	$12,444,122
Depressed Areas	700,000	0	100,000
Ancillary	188,854*	0	0
State Admin., Plan., Supv.	135,000	0	0
TOTALS	$ 1,758,108**	$ 0	$12,544,122
Planning Funds - Sec. 102D	$ 202,094	$ 0	$ 0
GRAND TOTALS	$26,546,608**	$57,208,124	$107,463,246

*Anticipated 1979 Funds include (120-3) $116,000; (131) $60,000; (134) $75,331; (135) 222,200; (150) $73,000
**1979 Funds are not included in totals.

Appendix

1977-78 TITLE I ELIGIBLES BY COUNTY
Map (A)



Numbers are K-12 districts designated as Economically Depressed Areas for Section 2.26-2, Part 1 of the State Plan.

(Determination made on the basis of districts having 20% or more Title I ESEA eligibles and/or 600 or more Title I ESEA eligibles)

Source: MDE data 1977-78

(MAP A)

K-12 DISTRICTS BY COUNTY
DESIGNATED AS ECONOMICALLY DEPRESSED AREAS
SOURCE: MICHIGAN DEPARTMENT OF EDUCATION 1977-78

ALCONA COUNTY
- Alcona Community Schools

ALGER COUNTY
- Burt Township School District

ALPENA COUNTY
- Alpena City School District

ARENAC COUNTY
- Arenac Eastern School District

BARAGA COUNTY
- Baraga Township School District

BAY COUNTY
- Bay City School District

BERRIEN COUNTY
- Benton Harbor Area Schools
- Eau Claire Public Schools
- Niles Community School District
- Hagar Township School District 6
- Sodus Township School District 5

CALHOUN COUNTY
- Albion Public Schools
- Battle Creek Public Schools
- Eckford Community Schools

CASS COUNTY
- Dowagiac Union Schools
- Marcellus Community Schools

CHARLEVOIX COUNTY
- Boyne City Public School District

CHEBOYGAN COUNTY
- Wolverine Community School District

CHIPPEWA COUNTY
- Sault Ste. Marie Area Schools
- Detour Area Schools
- Pickford Public Schools
- Rudyard Area Schools
- Brimley Public Schools
- Whitefish Schools

CLARE COUNTY
- Harrison Community Schools

DELTA COUNTY
- Escanaba Area Public Schools
- Big Bay de Noc School District

EMMET COUNTY
- Cross Village School District
- Pellston Public School District

GENESEE COUNTY
- Flint City School District
- Beecher Community School District

GOGEBIC COUNTY
- Bessemer City School District
- Ironwood Area Schools
- Bessemer Township School District

GRAND TRAVERSE COUNTY
- Traverse City School District

HILLSDALE COUNTY
- Camden Frontier Schools

HOUGHTON COUNTY
- Hancock Public Schools
- Adams Township School District
- Public Schools of Calumet
- Osceola Township School District
- Lake Linden Hubbell School District
- Stanton Township School District

HURON COUNTY
- Church Schools
- Harbor Beach Community Schools
- North Huron School District
- Owendale Gagetown Area School District
- Port Austin Public Schools
- Red School
- Bloomfield Township School District 4
- Bloomfield Township School District 7F
- Sheridan Township School District 5
- Sigel Township School District 3
- Sigel Township School District 4
- Sigel Township School District 6
- Verona Township School District 1F

INGHAM COUNTY
- Lansing Public School District

IONIA COUNTY
- Berlin Township School District 5F
- Campbell Township School District 4
- Easton Township School District 6F
- Orleans Township School District 9
- Orleans Township School District 10

IOSCO COUNTY
- Oscoda Area Schools

JACKSON COUNTY
- Jackson Public Schools

KALAMAZOO COUNTY
- Kalamazoo City School District

KALKASKA COUNTY
- Excelsior Township School District

KENT COUNTY
- Grand Rapids City School District
- Wyoming Public Schools

LAKE COUNTY
- Baldwin Community Schools

LEELANAU COUNTY
- Northport Public School District

LENAWEE COUNTY
- Adrian City School District
- Madison School District

MACKINAC COUNTY
- St. Ignace City School District
- Moran Township School District
- Mackinac Island Public Schools

MACOMB COUNTY
- East Detroit City School District
- Roseville Community Schools
- Mt. Clemens Community Schools
- Utica Community Schools
- Warren Consolidated Schools

MANISTEE COUNTY
- Kaleva Norman Dickson Schools

MARQUETTE COUNTY
- Marquette Township School District
- Wills Township School District
- Marquette City School District

MENOMINEE COUNTY
- Carney Nadeau Public Schools
- North Central Area Schools

MISSAUKEE COUNTY
- McBain Rural Agricultural School District

MONROE COUNTY
- Monroe Public Schools

MONTCALM COUNTY
- Vestaburg Community Schools

MONTMORENCY COUNTY
- Atlanta Community Schools

MUSKEGON COUNTY
- Muskegon City School District
- City of Muskegon Heights School District
- Duck Creek Schools

NEWAYGO COUNTY
- Hesperia Community School District
- White Cloud Public Schools
- Big Jackson School District

OAKLAND COUNTY
- Ferndale City School District
- Pontiac City School District
- School District City of Royal Oak
- Hazel Park City School District
- Farmington Public School District
- Oak Park City School District
- Waterford School District

OCEANA COUNTY
- Ferry Community School District
- Hart Public School District
- Pentwater Public School District
- Walkerville Rural Community School District

ONTONAGON COUNTY
- Bergland Community School District

OSCODA COUNTY
- Mio Au Sable Schools

OTSEGO COUNTY
- Vanderbilt Area Schools

PRESQUE ISLE COUNTY
- Onaway Area Community School District
- Posen Consolidated School District

SAGINAW COUNTY
- Saginaw City School District

ST. CLAIR COUNTY
- Port Huron Area School District
- Memphis Community Schools
- Yale Public Schools

ST. JOSEPH COUNTY
Burr Oak Community School District

SANILAC COUNTY
Deckerville Community School District

SCHOOLCRAFT COUNTY
Manistique Area Schools

SHIAWASSEE COUNTY
Owosso Public Schools

TUSCOLA COUNTY
Unionville Sebewaing Area School District

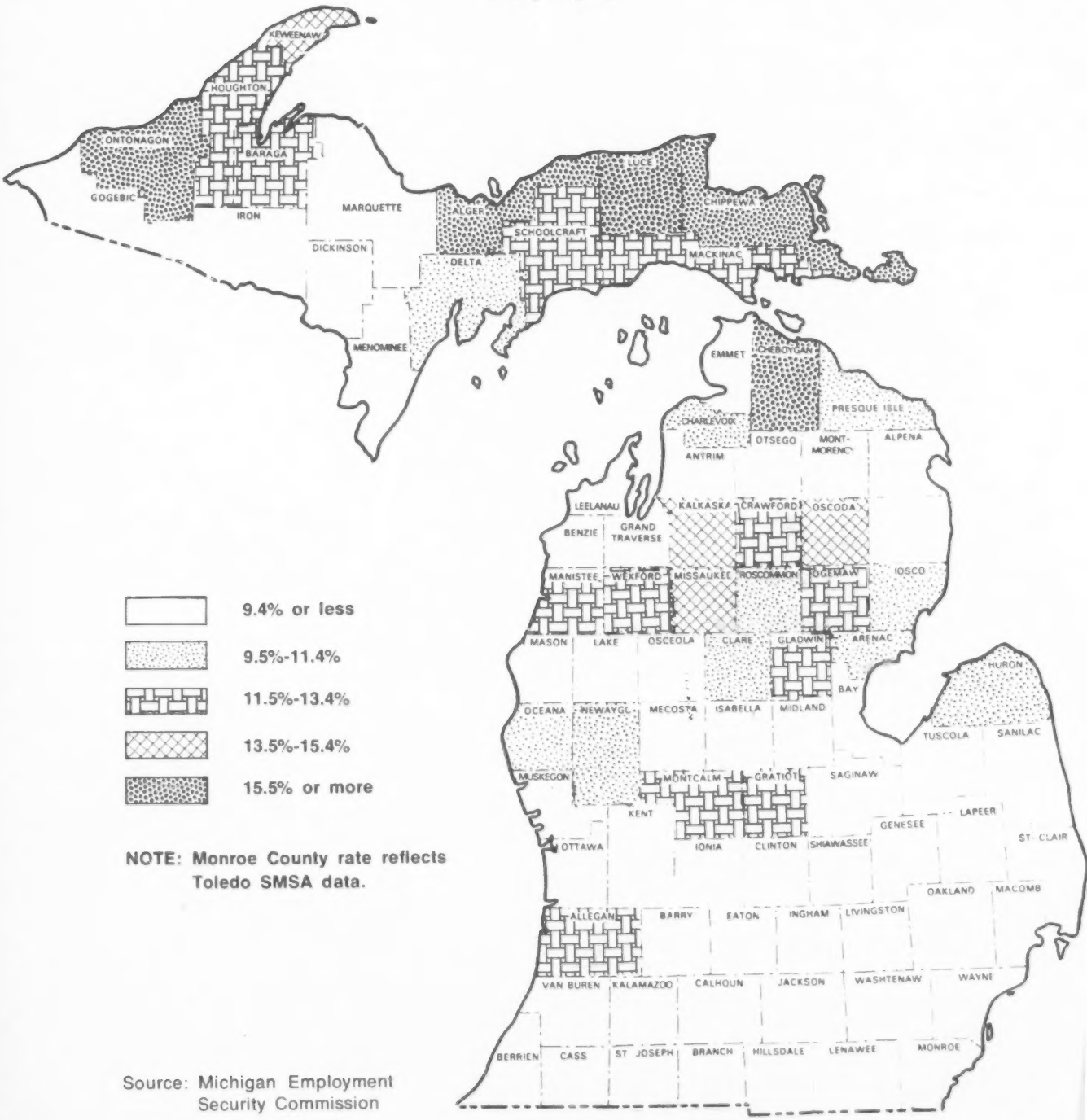
VAN BUREN COUNTY
Bangor Public Schools
Covert Public Schools
Decatur Public Schools
Bloomingdale Public School District
Bangor Township School District 8

WASHTENAW COUNTY
Ann Arbor Public Schools
School District of Ypsilanti

WAYNE COUNTY
Detroit City School District
Cherry Hill School District
Dearborn City School District
Garden City School District
Hamtramck Public Schools
Highland Park City Schools
Inkster City School District
Lincoln Park Public Schools
Livonia Public Schools
River Rouge City Schools
Romulus Community Schools
Taylor School District
Wayne Westland Community School District
Wyandotte City School District
Ecorse Public School District

WEXFORD COUNTY
Mesick Consolidated School District

UNEMPLOYMENT RATES
(Total)
1978
Map (B)



9.4% or less

9.5%-11.4%

11.5%-13.4%

13.5%-15.4%

15.5% or more

NOTE: Monroe County rate reflects Toledo SMSA data.

Source: Michigan Employment Security Commission

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(MAP B)

1978 ANNUAL AVERAGE UNEMPLOYMENT RATES BY COUNTY (IN %)

Average for Michigan 6.9

County	Percent	County	Percent
1 Alcona	6.9	1 Lake	7.5
5 Alger	15.9	1 Lapeer	6.1
3 Allegan	11.8	1 Leelanau	9.4
1 Alpena	5.9	1 Lenawee	6.5
1 Antrim	9.3	1 Livingston	5.4
2 Arenac	9.9	5 Luce	21.8
3 Baraga	12.2	3 Mackinac	11.5
1 Barry	6.3	1 Macomb	5.6
1 Bay	6.3	3 Manistee	11.5
1 Benzie	8.8	1 Marquette	7.5
1 Berrien	8.4	1 Mason	7.7
1 Branch	6.5	1 Mecosta	6.8
1 Calhoun	6.6	1 Menominee	7.2
1 Cass	5.7	1 Midland	7.2
2 Charlevoix	10.1	4 Missaukee	14.2
5 Cheboygan	20.1	1 Monroe	6.1
5 Chippewa	18.8	3 Montcalm	13.3
2 Clare	10.3	1 Montmorency	9.3
1 Clinton	5.1	1 Muskegon	8.1
3 Crawford	11.6	2 Newaygo	10.5
2 Delta	9.9	1 Oakland	6.1
1 Dickinson	7.4	2 Ocena	9.9
1 Eaton	4.7	3 Ogemaw	11.9
1 Emmet	8.5	5 Ontonagon	16.8
1 Genesee	7.5	1 Osceola	8.0
3 Gladwin	11.8	4 Oscoda	15.0
1 Gogebic	9.4	1 Otsego	7.7
1 Grand Traverse	6.4	1 Ottawa	4.7
3 Gratiot	12.0	2 Presque Isle	11.4
1 Hillsdale	5.2	2 Roscommon	11.3
3 Houghton	12.5	1 Saginaw	5.4
2 Huron	11.3	1 St. Clair	8.4
1 Ingham	6.6	1 St. Joseph	7.5
1 Ionia	8.4	1 Sanilac	8.4
2 Iosco	10.5	3 Schoolcraft	13.4
1 Iron	9.3	1 Shiawassee	8.3
1 Isabella	5.8	1 Tuscola	8.4
1 Jackson	5.8	1 VanBuren	6.6
1 Kalamazoo	5.4	1 Washtenaw	5.4
4 Kalkaska	15.4	1 Wayne	6.9
1 Kent	5.1	3 Wexford	11.5
4 Keweenaw	13.8		

Prepared by the staff of the Michigan Occupational Information Coordinating Committee (MOICC) using the following sources: MESC, Research & Statistics Division, Employment Estimates, 1978 Annual Average

MAP (C)
DROPOUTS AND DROPOUT RATES BY INTERMEDIATE SCHOOL DISTRICT 1976-77

The presentation of the dropouts and dropout rates by intermediate school district revealed a wide range of the dropout problems among Michigan intermediate school districts. The map indicates that the dropout rates by intermediate district for the 1976-77 school year ranged from 2.13% to 9.03%.

Key: Dropouts / Dropout Percentage

State Total of Dropouts: 39,216

Statewide Dropout Percentage: 6.30%

SOURCE:
Research, Evaluation and Assessment Services, Michigan Department of Education

(MAP C)

TABLE

PUBLIC HIGH SCHOOL DROPOUTS IN MICHIGAN BY INTERMEDIATE DISTRICT

1976-77

Intermediate District	Membership	Dropout	Dropout Rate
Allegan	5,679	333	5.86
Alpena, Montmorency, Alcona	4,192	212	5.06
Barry	2,610	186	7.13
Bay, Arenac	10,077	567	5.63
Berrien	12,465	933	7.48
Branch	2,573	131	5.09
Calhoun	9,876	509	5.15
Cass	2,776	254	9.15
Charlevoix-Emmet	3,485	139	3.99
Cheboygan, Otsego, Presque Isle	4,100	168	4.10
Eastern Upper Peninsula (Chippewa, Luce, Mackinaw)	4,329	161	3.72
Clare, Gladwin	3,060	118	3.86
Clinton	3,846	133	3.46
Delta, Schoolcraft	4,283	182	4.25
Dickinson, Iron	2,930	105	3.58
Eaton	5,798	262	4.52
Genesee	36,280	2,781	7.67
Gogebic, Ontonagon	2,252	48	2.13
Traverse Bay (Antrim, Benzie, Gr. Traverse, Kalkaska, Leelanau)	7,246	463	6.39
Gratiot, Isabella	5,505	262	4.76
Hillsdale	2,737	158	5.77
Copper Country (Baraga, Houghton, Keweenaw)	2,891	82	2.84
Huron	2,913	75	2.57
Ingham	18,174	1,043	5.74
Ionia	3,954	219	5.54
Iosco	2,622	140	5.34
Jackson	9,923	687	6.92
Kalamazoo	11,985	753	4.91
Kent	27,811	1,365	4.91
Lake	337	9	2.67
Lapeer	4,555	280	6.15
Lenawee	6,609	347	5.25
Livingston	5,940	253	4.26
Macomb	54,765	2,515	4.59
Manistee	1,456	44	3.02

(MAP C)
TABLE (continued)

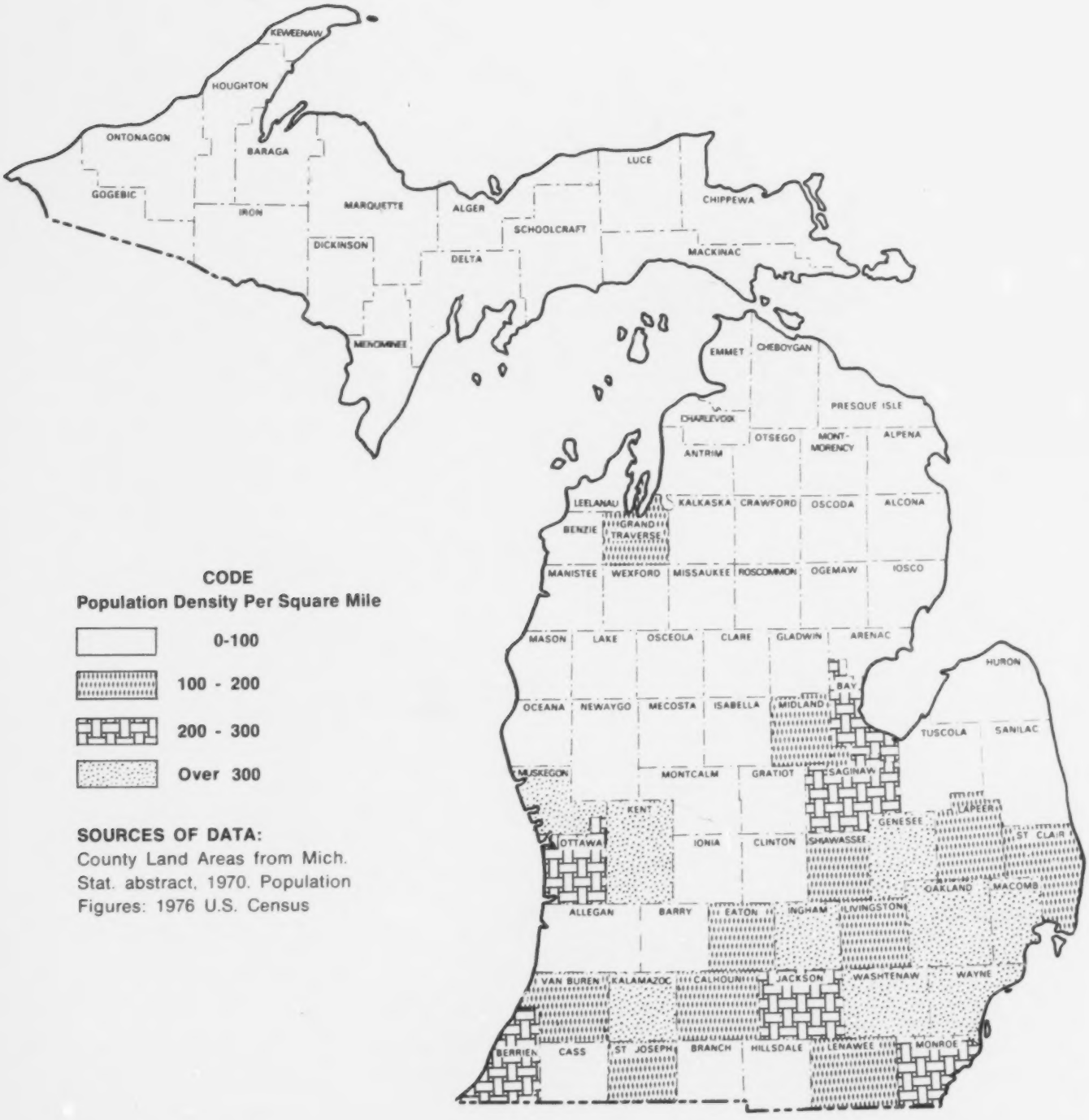
Intermediate District	Membership	Dropout	Dropout Rate
Marquette-Alger	5,454	272	4.99
Mason	1,912	75	3.92
Mecosta, Osceola	3,997	214	5.35
Menominee	1,987	61	3.07
Midland	5,691	258	4.53
Monroe	9,223	614	6.66
Montcalm	3,989	237	5.94
Muskegon	12,072	707	5.86
Newaygo	2,832	114	4.03
Oakland	68,668	3,958	5.76
Oceana	1,505	90	5.98
Ottawa	9,385	469	5.00
COOR (Crawford, Ogemaw, Oscoda, Roscommon)	3,142	221	7.03
Saginaw	16,809	1,164	6.92
St. Clair	9,661	478	4.95
St. Joseph	4,153	271	6.53
Sanilac	3,318	125	3.77
Shiawassee	5,919	331	5.59
Tuscola	5,211	279	5.35
Van Buren	5,280	370	7.01
Washtenaw	13,431	506	3.77
Wayne	136,553	12,328	9.03
Missaukee, Wexford	2,459	157	5.38
TOTAL	622,685	39,216	6.30

SOURCE:

Research, Evaluation and Assessment Services, Michigan Department of Education.

CAREER EDUCATION PLANNING DISTRICTS
Map (D)

ESTIMATED POPULATION DENSITY BY COUNTY
Map (E)
1978



CODE
Population Density Per Square Mile

	0-100
	100 - 200
	200 - 300
	Over 300

SOURCES OF DATA:
County Land Areas from Mich. Stat. abstract, 1970. Population Figures: 1976 U.S. Census

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(MAP E)

1978 POPULATION DENSITY BY COUNTY

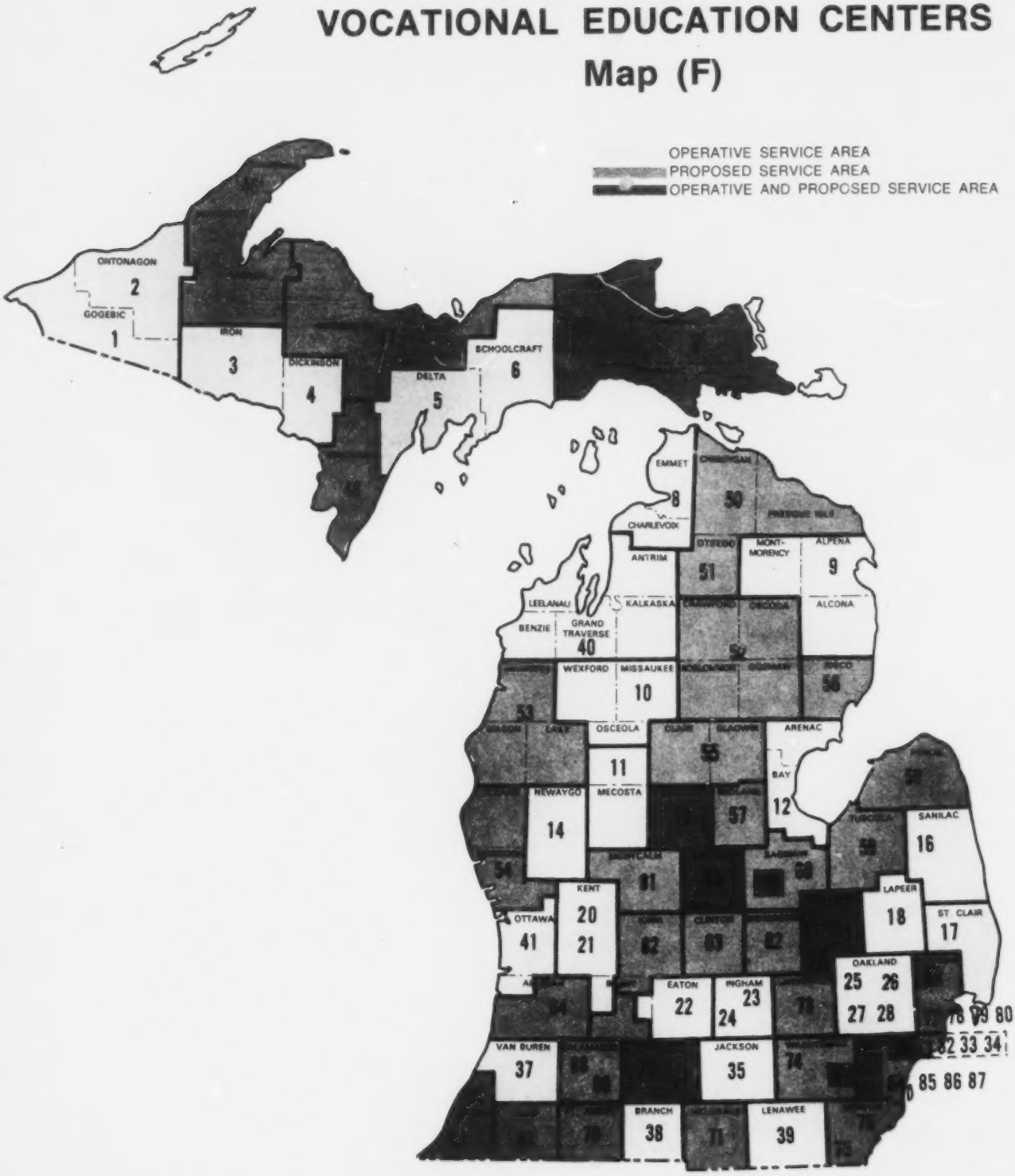
	County	Population Density*		County	Population Density*
1	Alcona	15	1	Lake	13
1	Alger	10	2	Lapeer	103
1	Allegan	90	1	Leelanau	39
1	Alpena	62	2	Lenawee	119
1	Antrim	37	2	Livingston	159
1	Arenac	38	1	Luce	8
1	Baraga	9	1	Mackinac	11
1	Barry	78	4	Macomb	1,445
3	Bay	270	1	Manistee	40
1	Benzie	34	1	Marquette	40
3	Berrien	299	1	Mason	54
1	Branch	79	1	Mecosta	77
2	Calhoun	197	1	Menominee	26
1	Cass	98	2	Midland	136
1	Charlevoix	46	1	Missaukee	17
1	Cheboygan	29	3	Monroe	236
1	Chippewa	25	1	Montcalm	66
1	Clare	42	1	Montmorency	14
1	Clinton	95	4	Muskegon	311
1	Crawford	16	1	Newaygo	39
1	Delta	34	4	Oakland	1,152
1	Dickinson	33	1	Oceana	39
2	Eaton	140	1	Ogemaw	29
1	Emmet	49	1	Ontonagon	9
4	Genesee	701	1	Osceola	32
1	Gladwin	37	1	Oscoda	12
1	Gogebic	20	1	Otsego	29
2	Grand Traverse	107	3	Ottawa	263
1	Gratiot	73	1	Presque Isle	23
1	Hillsdale	69	1	Roscommon	32
1	Houghton	38	3	Saginaw	281
1	Huron	45	1	Sanilac	44
4	Ingham	489	1	Schoolcraft	7
1	Ionia	83	2	Shiawassee	129
1	Iosco	58	2	St. Clair	188
1	Iron	12	2	St. Joseph	106
1	Isabella	95	1	Tuscola	71
3	Jackson	211	2	VanBuren	108
4	Kalamazoo	354	4	Washtenaw	351
1	Kalkaska	16	4	Wayne	3,929
4	Kent	500	1	Wexford	41
1	Keweenaw	4			

Prepared by the staff of the Michigan Occupational Information Coordinating Committee (MOICC) using the following sources: Michigan State University, Michigan Statistical Abstract, 1978 and MESC Population Estimate

* The number of people per square mile

MICHIGAN SECONDARY AREA VOCATIONAL EDUCATION CENTERS

Map (F)



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MICHIGAN SECONDARY AREA VOCATIONAL EDUCATION CENTERS

OPERATIVE SERVICE AREA			EXISTING CENTER
1	1972	Gogebic-Ontonagon ISD	Gogebic Community College
2	1974	Gogebic-Ontonagon ISD	Ontonagon Area Schools
3	1972	Dickinson-Iron ISD	West Iron County Schools
4	1976	Dickinson-Iron ISD	Dickinson Area Vocational Center
5	1971	Delta-Schoolcraft ISD	Bay de Noc Community College
6	1976	Delta-Schoolcraft ISD	Manistique Area Schools
7	1971	Eastern Upper Peninsula ISD	Sault Area Skill Center
8	1967	Charlevoix-Emmet ISD	Petoskey Public Schools
9	1967	Alpena-Montmorency-Alcona ISD	Alpena Public Schools
10	1972	Wexford-Missaukee ISD	Wexford-Missaukee Area Vocational Center
11	1976	Mecosta-Osceola ISD	Mecosta-Osceola Career Center
12	1972	Bay-Arenac ISD	Bay-Arenac Skill Center
13	1968	Gratiot-Isabella ISD	Mt. Pleasant Public Schools
14	1972	Newaygo ISD	Newaygo Area Vocational Education Center
15	1972	Saginaw Public Schools	Walter C. Averill, Jr. Career Opportunities Center — Saginaw Public Schools
16	1975	Sanilac ISD	Sanilac Career Center
17	1976	St. Clair ISD	St. Clair County Skill Center
18	1974	Lapeer ISD	Lapeer County Vocational-Technical Center
19	1969	Genesee ISD	Genesee Area Skill Center
20	1971	Kent ISD	Kent Skills Center (East Beltline)
21	1972	Kent ISD	Kent Skills Center (Downtown)
22	1972	Eaton ISD	Lansing Community College
23	1972	Ingham ISD	Capitol Area Career Center
24	1971	Lansing Public Schools	Lansing Public Schools
25	1971	Oakland ISD	Northwest Oakland Vocational Education Center
26	1970	Oakland ISD	Northeast Oakland Vocational Education Center
27	1971	Oakland ISD	Southwest Oakland Vocational Education Center
28	1970	Oakland ISD	Southeast Oakland Vocational Education Center
29	1974	Warren Consolidated Schools	Warren Consolidated Schools
30	1979	Detroit Public Schools	Detroit Public Schools
31	1980	Detroit Public Schools	Detroit Public Schools
32	1980	Detroit Public Schools	Detroit Public Schools
33	1980	Detroit Public Schools	Detroit Public Schools
34	1980	Detroit Public Schools	Detroit Public Schools
35	1976	Jackson ISD	Jackson Area Career Center
36	1970	Calhoun ISD	Calhoun Area Vocational Education Center
37	1976	Van Buren ISD	Van Buren Skill Center
38	1969	Branch ISD	Branch Area Career Center
39	1970	Lenawee ISD	Lenawee Vocational-Technical Center
40	1976	Traverse Bay Area ISD	Traverse Bay Area Vocational Center
41	1977	Ottawa ISD	Ottawa Area Vocational Center
42	1978	Livonia Public Schools	Livonia Public Schools
43	1978	Wayne-Westland Community Schools	Wayne-Westland Community Schools
44	1978	Taylor Public Schools	Taylor Public Schools
45	1978	Lincoln-Willow Run-Ypsilanti Consortium	Regional Career Technical Center

PROPOSED SERVICE AREA

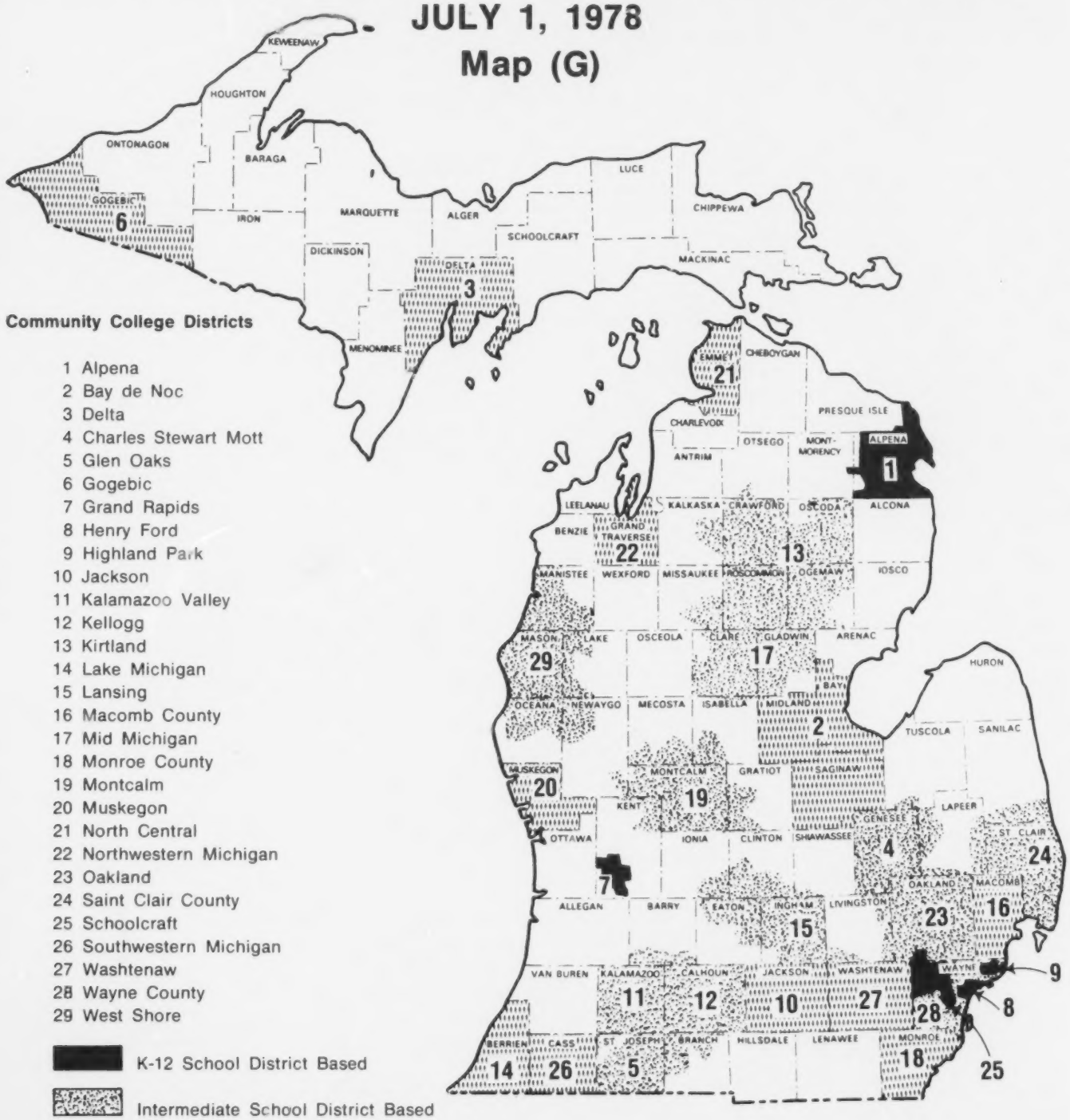
46 Copper Country ISD
47 Marquette-Alger ISD
48 Menominee ISD
49 Eastern Upper Peninsula ISD (Newberry Satellite)
50 Cheboygon-Otsego-Presque Isle ISD
51 Cheboygon-Otsego-Presque Isle ISD
52 Crawford-Oscoda-Ogemaw-Roscommon ISD
53 Mason, Manistee, Lake ISDs
54 Muskegon, Oceana ISDs
55 Clare-Gladwin ISD
56 Iosco ISD
57 Midland ISD
58 Huron ISD
59 Tuscola ISD
60 Saginaw ISD
61 Genesee ISD
62 Shiawassee ISD
63 Clinton County ISD
64 Allegan County ISD
65 Berrien ISD
66 Berrien ISD
67 Lewis Cass ISD
68 Kalamazoo Valley ISD
69 Kalamazoo Valley ISD
70 St. Joseph ISD
71 Hillsdale ISD
72 Calhoun ISD
73 Livingston ISD
74 Washtenaw ISD
75 Monroe ISD
76 Monroe ISD
77 Macomb ISD
78 Macomb ISD
79 Macomb ISD
80 Macomb ISD
81 Montcalm Area ISD
82 Ionia ISD
83 Gratiot-Isabella ISD
84 Wayne County ISD (Downriver)
85 Wayne County ISD (East Central)
86 Wayne County ISD (West Central)
87 Wayne County ISD (North)

ISD — Intermediate School District

OPERATING COMMUNITY COLLEGE DISTRICT IN MICHIGAN

JULY 1, 1978

Map (G)



Community College Districts

1 Alpena
2 Bay de Noc
3 Delta
4 Charles Stewart Mott
5 Glen Oaks
6 Gogebic
7 Grand Rapids
8 Henry Ford
9 Highland Park
10 Jackson
11 Kalamazoo Valley
12 Kellogg
13 Kirtland
14 Lake Michigan
15 Lansing
16 Macomb County
17 Mid Michigan
18 Monroe County
19 Montcalm
20 Muskegon
21 North Central
22 Northwestern Michigan
23 Oakland
24 Saint Clair County
25 Schoolcraft
26 Southwestern Michigan
27 Washtenaw
28 Wayne County
29 West Shore

K-12 School District Based

Intermediate School District Based

County Based

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Tables

Goal to Meet the State's Need for Workers

> In consideration of employment demand and labor supply, the Michigan Department of Education, in cooperation with local, Career Education Planning Districts and other agency planning efforts will develop policies which maximize training programs for employment opportunities of youth in the area.

To achieve this goal, the Michigan Department of Education has developed a policy that programs having the highest employment demand will be given priority funding. This policy was developed in cooperation with external advisory groups. The detail of this administrative policy can be found in the "Administrative Guide for Vocational Education in Michigan." In addition, at the present time, the Michigan Department of Education has designed a procedure by which employment demand by OE Code can be related to student placement by OE Code to provide an indication of program approval/disapproval status for new and on-going programs. This procedure is currently under review by a number of external advisory groups for consideration of potential implementation.

Sources of Data for Table 1

"Current Employment and Projected Expansion and Replacement Needs" — The occupational information in Table 1 is the most detailed to be included with a Michigan State Plan. It is based on projections which were developed from the U.S. Department of Labor's Bureau of Labor Statistics' 1970 census industry-occupational matrix as reported in the *Michigan Occupational Outlook 1980*. The 1970 census occupations were related to the U.S. Office of Education codes through the combined efforts of the M.E.S.C. and the Michigan Department of Education staffs. The openings data represent employment from growth-created openings plus openings arising from labor force separations. Openings resulting from geographic or occupational mobility, job turnover, etc., are not included.

OCCUPATIONAL OUTLOOK ECONOMIC REGIONS

MICHIGAN EMPLOYMENT REGIONS

1 — Detroit
2 — Grand Rapids
3 — Saginaw
4 — Flint
5 — Kalamazoo
6 — Lansing
7 — Benton Harobr
8 — Jackson
9 — Muskegon
10 — Upper Peninsula
11 — Northern Lower Peninsula

The State of Michigan is unable to supply "other sector" data required for Table 1 this year. Other sector data is collected at the program area level by D.O.T. codes. It was impossible to match data into a six digit O.E. code table. We are currently meeting with the Department of Labor and others to develop collection forms that are compatible to six digit codes.

The data are presented for the State as a whole and for the 11 major labor market areas (see map below) for which the occupational data is available. The educational data of the local educational agency, intermediate school district, and community college are aggregated to conform, with these 11 regions.

"Projected Labor Supply from Vocational-Technical Education" — This information is based on the most recent count of "completions" and "left with marketable skills" of secondary and postsecondary vocational education programs. The projected data is based on the most recent Michigan trends.

"1976 Supply Minus Needs" — This is the difference between the needs and supply figures in 1976. Care should be taken in interpreting this data. It should be noted that vocational education is not the only source of occupational training (CETA, OJT, etc.), and vocational education may impart skills that relate to occupations (and therefore job openings) beyond those directly matched in this table.

STATE OF MICHIGAN
TABLE I STATE TOTAL

EMPLOYMENT OPPORTUNITIES RELATED TO VOCATIONAL EDUCATION PROGRAMS

OE CODE	TITLE	CURRENT EMPLOYMENT	PROJECTED EXPANSION AND REPLACEMENT NEEDS 1976	1978	1979	1980	1981	1982	PROJECTED LABOR SUPPLY FROM VOCATIONAL-TECHNICAL EDUCATION 1976	1978	1979	1980	1981	1982	1976 SUPPLY MINUS NEEDS
01.0100	AGRICULTURAL PRODUCTION	45000	1557	1468	1425	1384	1344	1305	2513	2563	2589	2615	2641	2667	956
01.0200	AGRICULTURAL SUPP/SERV	2308	80	80	80	80	80	80	119	121	122	123	124	125	39
01.0300	AGRICULTURAL MECHANICS	1991	519	535	544	553	562	571	834	850	859	868	877	886	315
01.0400	AGRICULTURAL PRODUCTS	19127	662	662	662	662	662	662	57	59	60	61	62	63	-605
01.0500	ORNAMENTAL HORTICULTURE	10073	1747	1813	1826	1839	1852	1865	942	961	971	981	991	1001	-845
01.0600	AGRICULTURAL RESOURCES	284	10	10	10	10	10	10	426	434	438	442	446	450	416
01.0700	FORESTRY	4188	145	151	154	157	160	163	248	253	256	259	262	265	103
01.9900	OTHER AGRICULTURE	8026	278	262	254	247	240	233	85	87	88	89	90	91	-193
	TOTAL AGRICULTURE	90997	5038	4981	4955	4932	4910	4889	5224	5328	5383	5438	5493	5548	186
04.0100	ADVERTISING SERVICES	2700	130	134	136	138	140	142	211	224	231	238	245	252	81
04.0200	APPAREL AND ACCESSORIES	SEE 04.0800 FOR CURRENT EMPLOY. & PROJ. NEEDS							28	30	31	32	33	34	N/A
04.0300	AUTOMOTIVE	NO EMPLOYMENT DATA							2	2	2	2	2	2	N/A
04.0400	FINANCE AND CREDIT	10300	820	889	925	963	1002	1043	156	166	171	176	181	186	-664
04.0600	FOOD DISTRIBUTION	SEE 09.0203 FOR CURRENT EMPLOY. & PROJ. NEEDS							132	140	144	148	152	157	N/A
04.0700	FOOD SERVICES	SEE 09.0203 FOR CURRENT EMPLOY. & PROJ. NEEDS							24	26	27	28	29	30	N/A
04.0800	GENERAL MERCHANDISE	143900	11900	12332	12554	12780	13010	13244	13141	13941	14359	14790	15234	15691	1241
04.0900	HARDWARE, BLDG MATERIALS	SEE 04.0800 FOR CURRENT EMPLOY. & PROJ. NEEDS							1	1	1	1	1	1	N/A
04.1000	HOME FURNISHINGS	SEE 04.0800 FOR CURRENT EMPLOY. & PROJ. NEEDS							2	2	2	2	2	2	N/A
04.1100	HOTEL AND LODGING	SEE 04.0800 FOR CURRENT EMPLOY. & PROJ. NEEDS							59	63	65	67	69	71	N/A
04.1200	INDUSTRIAL MARKETING	SEE 04.0800 FOR CURRENT EMPLOY. & PROJ. NEEDS							101	107	110	113	116	119	N/A
04.1300	INSURANCE	19700	1280	1441	1529	1622	1721	1826	10	10	10	10	10	10	-1270
04.1400	INTERNATIONAL TRADE	NO EMPLOYMENT DATA													N/A
04.1500	PERSONAL SERVICES	SEE 04.0800 FOR CURRENT EMPLOY. & PROJ. NEEDS							3	3	3	3	3	3	N/A
04.1600	PETROLEUM	SEE 04.0800 FOR CURRENT EMPLOY. & PROJ. NEEDS							24	26	27	28	29	30	N/A
04.1700	REAL ESTATE	46665 NO PROJECTED NEEDS DATA							267	283	291	300	309	318	N/A
04.1800	RECREATION AND TOURISM	SEE 04.0800 FOR CURRENT EMPLOY. & PROJ. NEEDS							19	21	22	23	24	25	N/A
04.1900	TRANSPORTATION	2850	120	120	120	120	120	120	104	110	113	116	119	123	-16
04.9900	OTHER DISTRIBUTION	SEE 04.0800 FOR CURRENT EMPLOY. & PROJ. NEEDS							396	420	433	446	459	473	N/A
	TOTAL DISTRIBUTION	226115	14250	14916	15264	15623	15993	16375	14680	15575	16042	16523	17017	17527	430
07.0101	DENTAL ASSISTANT	4300	620	669	695	722	750	779	649	688	709	730	752	775	29
07.0102	DENTAL HYGIENIST (AD)	850	215	251	271	293	317	343	108	114	117	121	125	129	-107
07.0103	DENTAL LAB TECHNOLOGY	900	50	52	53	54	55	56	25	27	28	29	30	31	-25
07.0203	MEDICAL LAB ASSISTING	4800	720	809	858	909	964	1022	67	71	73	75	77	79	-653
07.0299	OTHER MEDICAL LAB TECH	SEE 07.0203 FOR CURRENT EMPLOY. & PROJ. NEEDS							240	254	262	270	278	286	N/A
07.0301	NURSING (AD)	32100	3560	3814	3947	4085	4228	4376	1269	1346	1386	1428	1471	1515	-2291
07.0302	PRACTICAL NURSING (VOC)	13550	1990	2206	2323	2446	2576	2713	1639	1739	1791	1845	1900	1957	-351
07.0303	NURSING ASSISTANT (AIDE)	33400	3650	3902	4035	4172	4314	4461	3239	3436	3539	3645	3754	3867	-411
07.0305	SURGICAL TECHNOLOGY	NO EMPLOYMENT DATA							10	10	10	10	10	10	N/A
07.0499	OTHER NURSING	SEE 07.0302 FOR CURRENT EMPLOY. & PROJ. NEEDS							42	44	45	46	47	48	N/A
07.0501	RADIOLOGIC TECHNOLOGY	2400	290	315	329	343	358	373	1275	1352	1393	1435	1478	1522	985
07.0600	OPHTHALMIC	NO EMPLOYMENT DATA													N/A
07.0800	MENTAL HEALTH TECHNOLOGY	SEE 07.9900 FOR CURRENT EMPLOY. & PROJ. NEEDS							56	60	62	64	66	68	N/A

STATE OF MICHIGAN
TABLE I STATE TOTAL (CONT)

EMPLOYMENT OPPORTUNITIES RELATED TO VOCATIONAL EDUCATION PROGRAMS

OE CODE	TITLE	CURRENT EMPLOYMENT	PROJECTED EXPANSION AND REPLACEMENT NEEDS 1976	1978	1979	1980	1981	1982	PROJECTED LABOR SUPPLY FROM VOCATIONAL-TECHNICAL EDUCATION 1976	1978	1979	1980	1981	1982	1976 SUPPLY MINUS NEEDS
07.0903	INHALATION THERAPY TECH	3400	510	573	607	643	682	723	157	167	172	177	182	187	-353
07.0904	MEDICAL ASSISTANT	NO EMPLOYMENT DATA							231	245	252	260	268	276	N/A
07.9900	OTHER HEALTH	2700	490	550	583	618	655	694	752	798	822	847	872	898	262
	TOTAL HEALTH	98400	12095	13141	13701	14285	14899	15540	9759	10351	10661	10982	11310	11648	-2336
09.0201	CHILD CARE AND GUIDANCE	4000	470	501	517	534	551	569	1835	1947	2005	2065	2127	2191	N/A
09.0202	CLOTHING MGMT, PROD & SERV	10750	790	818	833	848	863	879	507	538	554	571	588	606	-283
09.0203	FOOD MGMT, PROD & SERV	112600	8820	9015	9114	9214	9315	9417	2877	3052	3144	3238	3335	3435	-5943
09.0204	HOME FURN, EQUIP & SERV	NO EMPLOYMENT DATA							1	1	1	1	1	1	N/A
09.0205	INSTIT & HOME MGMT & SERV	NO EMPLOYMENT DATA							57	61	63	65	67	69	N/A
	TOTAL HOME ECONOMICS	127350	10080	10334	10464	10596	10729	10865	5277	5599	5767	5940	6118	6302	-4333
14.0100	ACCTG & COMPUTING OCCUP	79050	6760	7088	7258	7432	7610	7793	3017	3201	3297	3396	3498	3603	-3743
14.0201	COMPUTER & CONSOLE OPER	16200	1080	1159	1201	1244	1289	1335	2038	2162	2227	2294	2363	2434	958
14.0203	PROGRAMMERS	5950	310	330	341	352	363	375	203	215	221	228	235	242	-107
14.0300	FILING, OFF MACH, CLER OCC	38400	5070	5317	5445	5576	5710	5847	875	928	956	985	1015	1045	-4195
14.0400	INFORMATION COMM OCCUP	16900	590	602	608	614	620	626	72	76	78	80	82	84	-518
14.0500	MATERIALS SUPPORT, TRANS	NO EMPLOYMENT DATA							37	39	40	41	42	43	N/A
14.0600	PERSONNEL TRNG & REL OCC	NO EMPLOYMENT DATA							150	160	165	170	175	180	N/A
14.0700	STENO SECRETARIAL OCCUP	112450	13770	14666	15135	15619	16119	16635	5270	5591	5759	5932	6110	6293	-8500
14.0800	SUPV & ADMIN MGMT OCCUP	NO EMPLOYMENT DATA							1445	1533	1579	1626	1675	1725	N/A
14.0900	TYPING & RELATED OCCUP	41750	4570	4801	4921	5044	5170	5299	4468	4740	4882	5028	5179	5334	-102
14.9700	CLERICAL LAB	SEE 14.0700 FOR CURRENT EMPLOY. & PROJ. NEEDS							728	773	796	820	845	870	N/A
14.9800	STENO CLERICAL LAB	SEE 14.0700 FOR CURRENT EMPLOY. & PROJ. NEEDS							6184	6561	6758	6961	7170	7385	N/A
14.9900	OTHER OFFICE	NO EMPLOYMENT DATA							1345	1427	1470	1514	1559	1606	N/A
	TOTAL OFFICE	310700	32150	33963	34909	35881	36881	37910	25832	27406	28228	29075	29948	30844	-6318
16.0101	AERONAUTICAL TECHNOLOGY	NO EMPLOYMENT DATA													N/A
16.0103	ARCHITECTURAL TECHNOLOGY	NO EMPLOYMENT DATA							267	283	291	300	309	318	N/A
16.0104	AUTOMOTIVE TECHNOLOGY	NO EMPLOYMENT DATA							623	661	681	701	722	744	N/A
16.0105	CHEMICAL TECHNOLOGY	2000	40	40	40	40	40	40	54	58	60	62	64	66	14
16.0106	CIVIL TECHNOLOGY	NO EMPLOYMENT DATA							84	90	93	96	99	102	N/A
16.0107	ELECTRICAL TECHNOLOGY	3200	170	182	189	196	203	210	194	206	212	218	225	232	24
16.0108	ELECTRONIC TECHNOLOGY	SEE 16.0107 FOR CURRENT EMPLOY. & PROJ. NEEDS							652	692	713	734	756	779	N/A
16.0109	ELECTROMECHANICAL TECH	NO EMPLOYMENT DATA							58	62	64	66	68	70	N/A
16.0110	ENVIRONMENTAL CONTROL TECHNO	NO EMPLOYMENT DATA							72	76	78	80	82	84	N/A
16.0111	INDUSTRIAL TECHNOLOGY	950	30	32	33	34	35	36	177	187	193	199	205	211	147
16.0112	INSTRUMENTAL TECHNOLOGY	NO EMPLOYMENT DATA													N/A
16.0113	MECHANICAL TECHNOLOGY	2050	110	118	122	126	130	135	694	736	758	781	804	828	584
16.0114	METALLURGICAL TECHNOLOGY	NO EMPLOYMENT DATA							65	69	71	73	75	77	N/A
16.0117	SCIENTIFIC DATA TECHNOLOGY	2950	180	194	202	210	218	227	342	363	374	385	397	409	162
16.0601	COMMERCIAL PILOT TRAINING	NO EMPLOYMENT DATA							4	4	4	4	4	4	N/A
16.0602	FIRE & FIRE SAFETY TECH	6350	450	493	516	540	565	592	156	166	171	176	181	186	-294

STATE OF MICHIGAN
TABLE I STATE TOTAL (CONT)

EMPLOYMENT OPPORTUNITIES RELATED TO VOCATIONAL EDUCATION PROGRAMS

OE CODE	TITLE	CURRENT EMPLOYMENT	PROJECTED EXPANSION AND REPLACEMENT NEEDS 1976	1978	1979	1980	1981	1982	PROJECTED LABOR SUPPLY FROM VOCATIONAL-TECHNICAL EDUCATION 1976	1978	1979	1980	1981	1982	1976 SUPPLY MINUS NEEDS
16.0603	FORESTRY TECHNOLOGY	SEE 17.2802 FOR CURRENT EMPLOY. & PROJ. NEEDS							800	849	874	900	927	955	N/A
16.9900	OTHER TECHNICAL	NO EMPLOYMENT DATA							724	768	791	815	839	864	N/A
16.9902	WATER & WASTE WATER TECH	NO EMPLOYMENT DATA							10	10	10	10	10	10	N/A
	TOTAL TECHNICAL	17500	980	1059	1102	1146	1191	1240	4976	5280	5438	5600	5767	5939	3996
17.0100	AIR CONDITIONING	4400	390	431	453	476	500	525	607	644	663	683	703	724	217
17.0200	APPLIANCE REPAIR	5600	230	240	245	250	256	262	175	185	191	197	203	209	-55
17.0301	BODY AND FENDER REPAIR	4800	190	198	202	206	211	216	1512	1604	1652	1702	1753	1806	1322
17.0302	AUTO MECHANICS	41800	1230	1262	1278	1295	1312	1329	7943	8426	8679	8939	9207	9483	6713
17.0399	OTHER AUTOMOTIVE	19500	230	220	215	210	205	200	10	10	10	10	10	10	-220
17.0400	AVIATION OCCUPATIONS	1500	50	52	53	54	55	56	141	149	153	158	163	168	91
17.0500	BLUEPRINT READING	NO EMPLOYMENT DATA							221	235	242	249	256	264	N/A
17.0600	BUSINESS MACHINE MAINT	1600	160	166	169	173	177	181	138	146	150	155	160	165	-22
17.0700	COMMERCIAL ART OCCUP	4150	260	274	281	288	295	302	469	497	512	527	543	559	209
17.0900	COMMERCIAL PHOTOGRAPHY	2550	150	158	162	166	170	175	138	146	150	155	160	165	-12
17.1001	CARPENTRY	27285	1120	1158	1178	1198	1218	1239	3995	4238	4365	4496	4631	4770	2875
17.1002	ELECTRICITY	SEE 17.1400 FOR CURRENT EMPLOY. & PROJ. NEEDS							824	874	900	927	955	984	N/A
17.1004	MASONRY	6700	230	238	242	246	250	254	88	94	97	100	103	106	-142
17.1007	PLUMBING & PIPEFITTING	17800	910	960	986	1013	1040	1068	212	225	232	239	246	253	-698
17.1099	OTHER CONST & MAINT TRADES	26250	620	624	626	629	632	635	64	68	70	72	74	76	-556
17.1100	CUSTODIAL SERVICE	95550	8120	8564	8795	9032	9276	9526	301	319	329	339	349	359	-7819
17.1200	DIESEL MECHANIC	31300	1480	1552	1589	1627	1666	1706	179	190	196	202	208	214	-1301
17.1300	DRAFTING OCCUPATIONS	19300	890	941	967	994	1022	1051	1437	1524	1570	1617	1666	1716	547
17.1400	ELECTRICAL OCCUPATIONS	21950	1090	1149	1180	1212	1245	1279	835	886	913	940	968	997	-255
17.1500	ELECTRONIC OCCUPATIONS	4250	110	112	113	114	115	116	1927	2045	2106	2169	2234	2301	1817
17.1700	FOREMAN SUPV & MGMT DEVEL	NO EMPLOYMENT DATA							343	364	375	386	398	410	N/A
17.1900	GRAPHIC ARTS OCCUP	5900	270	284	291	298	305	313	1753	1860	1916	1973	2032	2093	1483
17.2100	INSTRUMENT MAINT & REPAIR	NO EMPLOYMENT DATA							6	6	6	6	6	6	N/A
17.2200	MARITIME OCCUP	NO EMPLOYMENT DATA							22	24	25	26	27	28	N/A
17.2302	MACHINE SHOP	50550	1340	1375	1393	1411	1429	1448	2474	2624	2703	2784	2868	2954	1134
17.2305	SHEET METAL	6700	140	142	143	144	145	146	21	23	24	25	26	27	-119
17.2306	WELDING & CUTTING	37300	1730	1817	1862	1909	1957	2006	3804	4036	4157	4282	4410	4542	2074
17.2399	OTHER METALWORKING OCCUP	NO EMPLOYMENT DATA							562	596	614	632	651	671	N/A
17.2400	METALLURGY OCCUP	NO EMPLOYMENT DATA							22	24	25	26	27	28	N/A
17.2602	COSMETOLOGY	18250	2000	2105	2160	2216	2274	2333	1187	1260	1298	1337	1377	1418	-813
17.2699	OTHER PERSONAL SERVICES	NO EMPLOYMENT DATA													N/A
17.2700	PLASTICS OCCUP	NO EMPLOYMENT DATA													N/A
17.2801	FIREMAN TRAINING	NO EMPLOYMENT DATA													N/A
17.2802	LAW ENFORCEMENT TRAINING	29400	2140	2315	2408	2504	2604	2708	562	596	614	632	651	671	-1578
17.2899	OTHER PUBLIC SERVICES	NO EMPLOYMENT DATA							16	16	16	16	16	16	N/A
17.2900	QUANTITY FOOD OCCUPATIONS	SEE 09.0203 FOR CURRENT EMPLOY. & PROJ. NEEDS							264	280	288	297	306	315	N/A
17.3000	REFRIGERATION	SEE 17.0100 FOR CURRENT EMPLOY. & PROJ. NEEDS							332	352	363	374	385	397	N/A
17.3100	SMALL ENGINE REPAIR	7650	330	344	352	360	368	376	1574	1670	1720	1772	1825	1880	1244
17.3200	STATIONARY ENERGY SOURCES	10950	170	178	182	186	190	194	235	249	256	264	272	280	65
17.3300	TEXTILE PROD & FABRICATION	NO EMPLOYMENT DATA							66	70	72	74	76	78	N/A

STATE OF MICHIGAN
TABLE I STATE TOTAL (CONT)

EMPLOYMENT OPPORTUNITIES RELATED TO VOCATIONAL EDUCATION PROGRAMS

OE CODE	TITLE	CURRENT EMPLOYMENT	PROJECTED EXPANSION AND REPLACEMENT NEEDS						PROJECTED LABOR SUPPLY FROM VOCATIONAL-TECHNICAL EDUCATION						1976 SUPPLY MINUS NEEDS
			1976	1978	1979	1980	1981	1982	1976	1978	1979	1980	1981	1982	
17.3500	UPHOLSTERING	2700	140	146	149	152	155	158	81	85	88	91	94	97	-59
17.3600	WOODWORKING OCCUP	2200	90	90	90	90	90	90	199	211	217	224	231	238	109
17.9900	OTHER TRADE & INDUSTRY	NO EMPLOYMENT DATA							4363	4629	4768	4911	5058	5210	N/A
	TOTAL TRADE & INDUSTRY	507885	25810	27095	27764	28453	29162	29892	39102	41480	42725	44006	45328	46688	13292
	STATE TOTAL	1378947	100403	105489	108159	110916	113765	116711	104850	111019	114244	117566	120981	124496	4917

STATE OF MICHIGAN
TABLE I REGION 01

EMPLOYMENT OPPORTUNITIES RELATED TO VOCATIONAL EDUCATION PROGRAMS

OE CODE	TITLE	CURRENT EMPLOYMENT	PROJECTED EXPANSION AND REPLACEMENT NEEDS 1976	1978	1979	1980	1981	1982	PROJECTED LABOR SUPPLY FROM VOCATIONAL-TECHNICAL EDUCATION 1976	1978	1979	1980	1981	1982	1976 SUPPLY MINUS NEEDS
01.0100	AGRICULTURAL PRODUCTION	NO EMPLOYMENT DATA							94	96	97	98	99	100	N/A
01.0200	AGRICULTURAL SUPP/SERV	NO EMPLOYMENT DATA													N/A
01.0300	AGRICULTURAL MECHANICS	NO EMPLOYMENT DATA							19	19	19	19	19	19	N/A
01.0500	ORNAMENTAL HORTICULTURE	NO EMPLOYMENT DATA							376	384	388	392	396	400	N/A
01.0600	AGRICULTURAL RESOURCES	NO EMPLOYMENT DATA							66	68	69	70	71	72	N/A
01.0700	FORESTRY	NO EMPLOYMENT DATA							12	12	12	12	12	12	N/A
01.9900	OTHER AGRICULTURE	NO EMPLOYMENT DATA							20	20	20	20	20	20	N/A
	TOTAL AGRICULTURE								587	599	605	611	617	623	587
04.0100	ADVERTISING SERVICES	1650	80	82	83	84	85	86	110	116	119	123	127	131	30
04.0200	APPAREL AND ACCESSORIES	SEE 04.0800 FOR CURRENT EMPLOY. & PROJ. NEEDS							5	5	5	5	5	5	N/A
04.0300	AUTOMOTIVE	NO EMPLOYMENT DATA							2	2	2	2	2	2	N/A
04.0400	FINANCE AND CREDIT	6000	480	521	542	564	587	611							-480
04.0600	FOOD DISTRIBUTION	SEE 09.0203 FOR CURRENT EMPLOY. & PROJ. NEEDS							3	3	3	3	3	3	N/A
04.0700	FOOD SERVICES	NO EMPLOYMENT DATA													N/A
04.0800	GENERAL MERCHANDISE	81173	6730	6974	7100	7228	7358	7490	6366	6754	6957	7166	7381	7602	-364
04.0900	HARDWARE, BLDG MATERIALS	NO EMPLOYMENT DATA													N/A
04.1000	HOME FURNISHINGS	SEE 04.0800 FOR CURRENT EMPLOY. & PROJ. NEEDS							2	2	2	2	2	2	N/A
04.1100	HOTEL AND LODGING	SEE 04.0800 FOR CURRENT EMPLOY. & PROJ. NEEDS							1	1	1	1	1	1	N/A
04.1200	INDUSTRIAL MARKETING	SEE 04.0800 FOR CURRENT EMPLOY. & PROJ. NEEDS							3	3	3	3	3	3	N/A
04.1300	INSURANCE	11000	710	799	848	900	955	1013							-710
04.1500	PERSONAL SERVICES	SEE 04.0800 FOR CURRENT EMPLOY. & PROJ. NEEDS							1	1	1	1	1	1	N/A
04.1600	PETROLEUM	NO EMPLOYMENT DATA													N/A
04.1700	REAL ESTATE	25690 NO PROJECTED NEEDS DATA							116	123	127	131	135	139	N/A
04.1800	RECREATION AND TOURISM	NO EMPLOYMENT DATA													N/A
04.1900	TRANSPORTATION	2000	90	90	90	90	90	90	63	67	69	71	73	75	-27
	TOTAL DISTRIBUTION	127513	8090	8466	8663	8866	9075	9290	6672	7077	7289	7508	7733	7964	-1418
07.0101	DENTAL ASSISTANT	2700	340	421	437	454	472	490	473	502	517	533	549	565	83
07.0102	DENTAL HYGIENIST (AD)	550	140	163	176	190	205	222							-140
07.0103	DENTAL LAB TECHNOLOGY	550	30	32	33	34	35	36	25	27	28	29	30	31	-5
07.0203	MEDICAL LAB ASSISTING	2900	440	494	524	555	588	623	31	33	34	35	36	37	-409
07.0299	OTHER MEDICAL LAB TECH	SEE 07.0203 FOR CURRENT EMPLOY. & PROJ. NEEDS							72	76	78	80	82	84	N/A
07.0301	NURSING (AD)	16460	1830	1960	2029	2100	2174	2250	565	599	617	636	655	675	-1265
07.0302	PRACTICAL NURSING (VOC)	6050	890	987	1039	1094	1152	1213	430	456	470	484	499	514	-460
07.0303	NURSING ASSISTANT (AIDE)	16500	1800	1924	1989	2057	2127	2199	1432	1519	1565	1612	1660	1710	-368
07.0501	RADIOLOGIC TECHNOLOGY	1400	170	185	193	201	210	219	681	722	744	766	789	813	511
07.0800	MENTAL HEALTH TECHNOLOGY	SEE 07.9900 FOR CURRENT EMPLOY. & PROJ. NEEDS							42	44	45	46	47	48	N/A
07.0903	INHALATION THERAPY TECH	1900	290	325	345	366	388	411	112	118	122	126	130	134	-178
07.0904	MEDICAL ASSISTANT	NO EMPLOYMENT DATA							190	202	208	214	220	227	N/A
07.9900	OTHER HEALTH	1161	180	202	214	227	241	255	399	423	436	449	462	476	219
	TOTAL HEALTH	50171	6160	6693	6979	7278	7592	7918	4452	4721	4864	5010	5159	5314	-1708

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OE CODE	TITLE	CURRENT EMPLOYMENT	PROJECTED EXPANSION AND REPLACEMENT NEEDS 1976	1978	1979	1980	1981	1982	PROJECTED LABOR SUPPLY FROM VOCATIONAL-TECHNICAL EDUCATION 1976	1978	1979	1980	1981	1982	1976 SUPPLY MINUS NEEDS
09.0101	COMPREHENSIVE HOMEMAKING	NO EMPLOYMENT DATA													N/A
09.0201	CHILD CARE AND GUIDANCE	1800	210	224	231	238	246	254	938	995	1025	1056	1088	1121	N/A
09.0202	CLOTHING MGMT, PROD & SERV	6000	440	456	464	472	480	489	386	410	422	435	448	461	-54
09.0203	FOOD MGMT, PROD & SERV	57700	4540	4640	4691	4743	4795	4848	1610	1708	1759	1812	1866	1922	-2930
09.0204	HOME FURN, EQUIP & SERV	NO EMPLOYMENT DATA													N/A
	TOTAL HOME ECONOMICS	65500	5190	5320	5386	5453	5521	5591	2934	3113	3206	3303	3402	3504	-2046
14.0100	ACCTG & COMPUTING OCCUP	43500	3770	3953	4048	4145	4244	4346	1379	1463	1507	1552	1599	1647	-2391
14.0201	COMPUTER & CONSOLE OPER	10550	710	762	789	817	846	876	1110	1177	1212	1248	1285	1324	400
14.0203	PROGRAMMERS	4100	230	245	253	261	269	278	180	191	197	203	209	215	-50
14.0300	FILING, OFF MACH, CLER OCC	23650	2520	2642	2705	2770	2836	2904	384	408	420	433	446	459	-2136
14.0400	INFORMATION COMM OCCUP	10050	350	358	362	366	370	374	63	67	69	71	73	75	-287
14.0500	MATERIALS SUPPORT, TRANS	NO EMPLOYMENT DATA							18	20	21	22	23	24	N/A
14.0600	PERSONNEL TRNG & REL OCC	NO EMPLOYMENT DATA							31	33	34	35	36	37	N/A
14.0700	STENO SECRETARIAL OCCUP	64320	8510	9063	9353	9652	9961	10280	2742	2909	2996	3086	3179	3274	-5768
14.0800	SUPV & ADMIN MGMT OCCUP	NO EMPLOYMENT DATA							847	898	925	953	982	1011	N/A
14.0900	TYPING & RELATED OCCUP	26700	2920	3068	3145	3224	3305	3388	2314	2454	2528	2604	2682	2762	-606
14.9700	CLERICAL LAB	SEE 14.0700 FOR CURRENT EMPLOY. & PROJ. NEEDS							292	310	319	329	339	349	N/A
14.9800	STENO CLERICAL LAB	SEE 14.0700 FOR CURRENT EMPLOY. & PROJ. NEEDS							3252	3451	3555	3662	3772	3885	N/A
14.9900	OTHER OFFICE	NO EMPLOYMENT DATA							403	427	440	453	467	481	N/A
	TOTAL OFFICE	182870	19010	20091	20655	21235	21831	22446	13015	13808	14223	14651	15092	15543	-5995
16.0103	ARCHITECTURAL TECHNOLOGY	NO EMPLOYMENT DATA							165	175	180	185	191	197	N/A
16.0104	AUTOMOTIVE TECHNOLOGY	NO EMPLOYMENT DATA							305	323	333	343	353	364	N/A
16.0105		900	20	20	20	20	20	20							-20
16.0106	CIVIL TECHNOLOGY	NO EMPLOYMENT DATA							20	22	23	24	25	26	N/A
16.0107	ELECTRICAL TECHNOLOGY	2000	110	118	122	126	131	136	97	103	106	109	112	115	-13
16.0108	ELECTRONIC TECHNOLOGY	SEE 16.0107 FOR CURRENT EMPLOY. & PROJ. NEEDS							316	335	345	355	366	377	N/A
16.0109	ELECTROMECHANICAL TECH	NO EMPLOYMENT DATA							38	40	41	42	43	44	N/A
16.0110	ENVIRONMENTAL CONTROL TECHNO	NO EMPLOYMENT DATA							61	65	67	69	71	73	N/A
16.0111	INDUSTRIAL TECHNOLOGY	500	20	20	20	20	20	20	47	49	50	52	54	56	27
16.0113	MECHANICAL TECHNOLOGY	1700	90	96	99	102	106	110	212	225	232	239	246	253	122
16.0114	METALLURGICAL TECHNOLOGY	NO EMPLOYMENT DATA							65	69	71	73	75	77	N/A
16.0117	SCIENTIFIC DATA TECHNOLOGY	2250	140	152	158	164	171	178	267	283	291	300	309	318	127
16.0602	FIRE & FIRE SAFETY TECH	3900	280	307	321	336	352	369	136	144	148	152	157	162	-144
16.0603	POLICE SCIENCE	SEE 17.2802 FOR CURRENT EMPLOY. & PROJ. NEEDS							251	267	275	283	291	300	N/A
16.9900	OTHER TECHNICAL	NO EMPLOYMENT DATA							439	466	480	494	509	524	N/A
	TOTAL TECHNICAL	11250	660	713	740	768	800	833	2419	2566	2642	2720	2802	2886	1759
17.0100	AIR CONDITIONING	2250	200	221	232	244	256	269	311	330	340	350	361	372	111
17.0200	APPLIANCE REPAIR	3000	130	136	139	142	145	148	96	102	105	108	111	114	-34
17.0301	BODY AND FENDER REPAIR	2350	70	94	96	98	100	102	685	727	749	771	794	818	595
17.0302	AUTO MECHANICS	23200	680	698	707	716	725	734	3701	3926	4044	4165	4290	4419	3021

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17.0399	OTHER AUTOMOTIVE	9300	100	96	94	92	90	88	2	2	2	2	2	2	-98
17.0400	AVIATION OCCUPATIONS	1050	30	32	33	34	35	36	54	58	60	62	64	66	24
17.0500	BLUEPRINT READING	NO EMPLOYMENT DATA							193	205	211	217	224	231	N/A
17.0600	BUSINESS MACHINE MAINT	1100	110	114	116	118	120	123	134	142	146	150	155	160	24
17.0700	COMMERCIAL ART OCCUP	3100	190	200	205	210	215	220	294	312	321	331	341	351	104
17.0900	COMMERCIAL PHOTOGRAPHY	1600	90	94	97	100	103	106	57	61	63	65	67	69	-33
17.1001	CARPENTRY	10450	420	434	441	448	456	464	1124	1193	1229	1266	1304	1343	704
17.1002	ELECTRICITY	SEE 17.1400 FOR CURRENT EMPLOY. & PROJ. NEEDS							649	688	709	730	752	775	N/A
17.1004	MASONRY	3940	120	124	126	128	130	132	18	20	21	22	23	24	-102
17.1007	PLUMBING & PIPEFITTING	9550	490	517	531	545	560	575	165	175	180	185	191	197	-325
17.1099	OTHER CONST & MAINT TRADES	13900	330	332	333	334	335	336	16	16	16	16	16	16	-314
17.1100	CUSTODIAL SERVICE	50400	4300	4535	4657	4783	4912	5045	159	169	174	179	184	190	-4141
17.1200	DIESEL MECHANIC	15550	750	786	805	824	844	864	108	114	117	121	125	129	-642
17.1300	DRAFTING OCCUPATIONS	13600	620	655	673	692	711	731	952	1010	1040	1071	1103	1136	332
17.1400	ELECTRICAL OCCUPATIONS	11730	580	612	629	646	663	681	346	367	378	389	401	413	-234
17.1500	ELECTRONIC OCCUPATIONS	2350	60	62	63	64	65	66	964	1023	1054	1086	1119	1153	904
17.1700	FOREMAN SUPV & MGMT DEVEL	NO EMPLOYMENT DATA							50	54	56	58	60	62	N/A
17.1900	GRAPHIC ARTS OCCUP	3150	150	158	162	166	170	174	1033	1096	1129	1163	1198	1234	883
17.2100	INSTRUMENT MAINT & REPAIR	NO EMPLOYMENT DATA							1	1	1	1	1	1	N/A
17.2200	MARITIME OCCUP	NO EMPLOYMENT DATA													N/A
17.2302	MACHINE SHOP	29650	760	780	790	800	810	821	1092	1159	1194	1230	1267	1305	332
17.2305	SHEET METAL	3900	90	80	80	80	80	80	4	4	4	4	4	4	-76
17.2306	WELDING & CUTTING	20100	920	967	991	1016	1041	1067	1797	1907	1964	2023	2084	2147	877
17.2399	OTHER METALWORKING OCCUP	NO EMPLOYMENT DATA							434	460	474	488	503	518	N/A
17.2400	METALLURGY OCCUP	NO EMPLOYMENT DATA							17	19	20	21	22	23	N/A
17.2602	COSMETOLOGY	9550	1020	1074	1102	1131	1160	1190	592	628	647	666	686	707	-428
17.2699	OTHER PERSONAL SERVICES	NO EMPLOYMENT DATA													N/A
17.2700	PLASTICS OCCUP	NO EMPLOYMENT DATA													N/A
17.2801	FIREMAN TRAINING	NO EMPLOYMENT DATA													N/A
17.2802	LAW ENFORCEMENT TRAINING	18500	1350	1460	1518	1579	1642	1708	233	247	254	262	270	278	-1117
17.2899	OTHER PUBLIC SERVICES	NO EMPLOYMENT DATA													N/A
17.2900	QUANTITY FOOD OCCUPATIONS	SEE 09.0203 FOR CURRENT EMPLOY. & PROJ. NEEDS							188	200	206	212	218	225	N/A
17.3000	REFRIGERATION	SEE 17.0100 FOR CURRENT EMPLOY. & PROJ. NEEDS							185	197	203	209	215	221	N/A
17.3100	SMALL ENGINE REPAIR	4750	190	198	202	206	211	216	526	558	575	592	610	628	336
17.3200	STATIONARY ENERGY SOURCES	6100	90	94	96	98	100	102	235	249	256	264	272	280	145
17.3300	TEXTILE PROD & FABRICATION	NO EMPLOYMENT DATA							66	70	72	74	76	78	N/A
17.3500	UPHOLSTERING	1300	70	72	73	74	75	76	58	62	64	66	68	70	-12
17.3600	WOODWORKING OCCUP	750	30	30	30	30	30	30	168	178	183	188	194	200	138
17.9900	OTHER TRADE & INDUSTRY	NO EMPLOYMENT DATA							490	520	536	552	569	586	N/A
	TOTAL TRADE & INDUSTRY	276170	13950	14655	15021	15398	15784	16184	17197	18249	18797	19359	19944	20545	3247
	TOTAL REGION 01	713474	53060	55938	57444	58998	60603	62262	47276	50133	51626	53162	54749	56379	-5574

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OE CODE	TITLE	CURRENT EMPLOYMENT	PROJECTED EXPANSION AND REPLACEMENT NEEDS 1976	1978	1979	1980	1981	1982	PROJECTED LABOR SUPPLY FROM VOCATIONAL-TECHNICAL EDUCATION 1976	1978	1979	1980	1981	1982	1976 SUPPLY MINUS NEEDS
01.0100	AGRICULTURAL PRODUCTION	NO EMPLOYMENT DATA							408	416	420	424	428	432	N/A
01.0200	AGRICULTURAL SUPP/SERV	NO EMPLOYMENT DATA													N/A
01.0300	AGRICULTURAL MECHANICS	NO EMPLOYMENT DATA							63	65	66	67	68	69	N/A
01.0400	AGRICULTURAL PRODUCTS	NO EMPLOYMENT DATA							42	42	42	42	42	42	N/A
01.0500	ORNAMENTAL HORTICULTURE	NO EMPLOYMENT DATA							75	77	78	79	80	81	N/A
01.0600	AGRICULTURAL RESOURCES	NO EMPLOYMENT DATA							85	87	88	89	90	91	N/A
01.0700	FORESTRY	NO EMPLOYMENT DATA							10	10	10	10	10	10	N/A
	TOTAL AGRICULTURE								683	697	704	711	718	725	683
04.0100		200	10	10	10	10	10	10							-10
04.0200	APPAREL AND ACCESSORIES	NO EMPLOYMENT DATA													N/A
04.0400		600	50	54	56	58	60	62							-50
04.0800	GENERAL MERCHANDISE	11750	960	995	1013	1031	1050	1069	966	1025	1056	1088	1121	1155	6
04.1100	HOTEL AND LODGING	SEE 04.0800 FOR CURRENT EMPLOY. & PROJ. NEEDS							14	14	14	14	14	14	N/A
04.1300		2000	130	146	155	164	174	185							-130
04.1700		2915	NO PROJECTED NEEDS DATA												N/A
04.1900		150	NO PROJECTED NEEDS DATA												N/A
	TOTAL DISTRIBUTION	17615	1150	1205	1234	1263	1294	1326	980	1039	1070	1102	1135	1169	-170
07.0101	DENTAL ASSISTANT	250	40	44	46	48	50	52	45	47	48	49	50	52	5
07.0102	DENTAL HYGIENIST (AD)	50	10	12	13	14	15	16							-10
07.0103		100	NO PROJECTED NEEDS DATA												N/A
07.0203		250	40	45	48	51	54	57							-40
07.0301	NURSING (AD)	2600	290	311	322	333	345	357	69	73	75	77	79	81	-221
07.0302	PRACTICAL NURSING (VOC)	1250	180	200	211	222	234	246	196	208	214	220	227	234	16
07.0303	NURSING ASSISTANT (AIDE)	2850	310	332	343	355	367	379	141	149	153	158	163	168	-169
07.0501	RADIOLOGIC TECHNOLOGY	100	10	10	10	10	10	10	37	39	40	41	42	43	27
07.0903		200	30	34	36	38	40	42							-30
07.9900	OTHER HEALTH	243	50	56	59	63	67	71	18	20	21	22	23	24	-32
	TOTAL HEALTH	7893	960	1044	1088	1134	1182	1230	506	536	551	567	584	602	-454
09.0201	CHILD CARE AND GUIDANCE	300	30	32	33	34	35	36	58	62	64	66	68	70	N/A
09.0202		850	60	62	63	64	65	66							-60
09.0203	FOOD MGMT, PROD & SERV	9400	740	756	764	772	780	789	101	107	110	113	116	119	-639
09.0204	HOME FURN, EQUIP & SERV	NO EMPLOYMENT DATA							1	1	1	1	1	1	N/A
	TOTAL HOME ECONOMICS	10550	830	850	860	870	880	891	160	170	175	180	185	190	-640
14.0100	ACCTG & COMPUTING OCCUP	6050	490	514	526	539	552	565	37	39	40	41	42	43	-453
14.0201	COMPUTER & CONSOLE OPER	950	60	64	66	68	70	73	44	46	47	48	49	50	-16
14.0203		200	10	10	10	10	10	10							-10
14.0300	FILING, OFF MACH, CLER OCC	2700	310	325	333	341	349	357	20	22	23	24	25	26	-290
14.0400		1550	60	62	63	64	65	66							-60

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14.0700	STENO SECRETARIAL OCCUP	8750	1090	1161	1198	1236	1276	1317	239	253	261	269	277	285	-851
14.0800	SUPV & ADMIN MGMT OCCUP	NO EMPLOYMENT DATA							153	163	168	173	178	183	N/A
14.0900	TYPING & RELATED OCCUP	2700	300	316	324	332	340	349	242	256	264	272	280	288	-58
14.9700	CLERICAL LAB	SEE 14.0700 FOR CURRENT EMPLOY. & PROJ. NEEDS							97	103	106	109	112	115	N/A
14.9800	STENO CLERICAL LAB	SEE 14.0700 FOR CURRENT EMPLOY. & PROJ. NEEDS							364	386	398	410	422	435	N/A
14.9900	OTHER OFFICE	NO EMPLOYMENT DATA							175	185	191	197	203	209	N/A
	TOTAL OFFICE	22900	2320	2452	2520	2590	2662	2737	1371	1453	1498	1543	1588	1634	-949
16.0104	AUTOMOTIVE TECHNOLOGY	NO EMPLOYMENT DATA							26	28	29	30	31	32	N/A
16.0107		150 NO PROJECTED NEEDS DATA													N/A
16.0111		50 NO PROJECTED NEEDS DATA													N/A
16.0113	MECHANICAL TECHNOLOGY	NO EMPLOYMENT DATA							20	22	23	24	25	26	N/A
16.0117		50 NO PROJECTED NEEDS DATA													N/A
16.0602		300	20	22	23	24	25	26							-20
16.0603	POLICE SCIENCE	SEE 17.2802 FOR CURRENT EMPLOY. & PROJ. NEEDS							37	39	40	41	42	43	N/A
16.9900	OTHER TECHNICAL	NO EMPLOYMENT DATA							19	21	22	23	24	25	N/A
	TOTAL TECHNICAL	550	20	22	23	24	25	26	102	110	114	118	122	126	82
17.0100	AIR CONDITIONING	500	50	56	59	62	65	68	19	21	22	23	24	25	-31
17.0200	APPLIANCE REPAIR	450	20	20	20	20	20	20	2	2	2	2	2	2	-18
17.0301	BODY AND FENDER REPAIR	450	20	20	20	20	20	20	5	5	5	5	5	5	-15
17.0302	AUTO MECHANICS	2800	80	82	83	84	85	86	504	535	551	568	585	603	424
17.0399		1450	20	20	20	20	20	20							-20
17.0400	AVIATION OCCUPATIONS	NO EMPLOYMENT DATA							5	5	5	5	5	5	N/A
17.0500	BLUEPRINT READING	NO EMPLOYMENT DATA													N/A
17.0600		150	20	20	20	20	20	20							-20
17.0700	COMMERCIAL ART OCCUP	300	20	22	23	24	25	26	6	6	6	6	6	6	-14
17.0900		200	10	10	10	10	10	10							-10
17.1001	CARPENTRY	2000	80	82	83	84	85	86	373	396	408	420	433	446	293
17.1004		550	20	20	20	20	20	20							-20
17.1007		1200	60	64	66	68	70	72							-60
17.1099		2250	60	60	60	60	60	60							-60
17.1100	CUSTODIAL SERVICE	7300	620	654	672	690	709	728	11	11	11	11	11	11	-609
17.1200		2600	120	126	129	132	135	138							-120
17.1300	DRAFTING OCCUPATIONS	1000	50	52	53	54	56	58	17	19	20	21	22	23	-33
17.1400	ELECTRICAL OCCUPATIONS	1500	40	84	86	88	90	92	38	40	41	42	43	44	-42
17.1500	ELECTRONIC OCCUPATIONS	300 NO PROJECTED NEEDS DATA							78	82	84	87	90	93	N/A
17.1900	GRAPHIC ARTS OCCUP	700	30	32	33	34	35	36	31	33	34	35	36	37	1
17.2302	MACHINE SHOP	4320	120	124	126	128	130	132	134	142	146	150	155	160	14
17.2305	SHEET METAL	450 NO PROJECTED NEEDS DATA							5	5	5	5	5	5	N/A
17.2306	WELDING & CUTTING	3200	150	158	162	166	170	174	20	22	23	24	25	26	-130
17.2399	OTHER METALWORKING OCCUP	NO EMPLOYMENT DATA							8	8	8	8	8	8	N/A
17.2602	COSMETOLOGY	1550	170	179	184	189	194	199	76	80	82	84	87	90	-94
17.2802		1900	140	152	158	164	171	178							-140

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17.3100	SMALL ENGINE REPAIR	750	30	32	33	34	35	36	39	41	42	43	44	45	9
17.3200		750	NO PROJECTED NEEDS DATA												N/A
17.3500	UPHOLSTERING	550	30	32	33	34	35	36	7	7	7	7	7	7	-23
17.3600	WOODWORKING OCCUP	450	20	20	20	20	20	20	13	13	13	13	13	13	-7
17.9900	OTHER TRADE & INDUSTRY	NO EMPLOYMENT DATA							216	229	236	243	250	258	N/A
	TOTAL TRADE & INDUSTRY	39620	2020	2121	2173	2225	2280	2335	1607	1702	1751	1802	1856	1912	-413
	TOTAL REGION 02	99128	7300	7694	7898	8106	8323	8545	5409	5707	5863	6023	6188	6358	-1861

STATE OF MICHIGAN
TABLE I REGION 03

EMPLOYMENT OPPORTUNITIES RELATED TO VOCATIONAL EDUCATION PROGRAMS

OE CODE	TITLE	CURRENT EMPLOYMENT	PROJECTED EXPANSION AND REPLACEMENT NEEDS 1976	1978	1979	1980	1981	1982	PROJECTED LABOR SUPPLY FROM VOCATIONAL-TECHNICAL EDUCATION 1976	1978	1979	1980	1981	1982	1976 SUPPLY MINUS NEEDS
01.0100	AGRICULTURAL PRODUCTION	NO EMPLOYMENT DATA							766	782	790	798	806	814	N/A
01.0200	AGRICULTURAL SUPP/SERV	NO EMPLOYMENT DATA							78	80	81	82	83	84	N/A
01.0300	AGRICULTURAL MECHANICS	NO EMPLOYMENT DATA							260	266	269	272	275	278	N/A
01.0400	AGRICULTURAL PRODUCTS	NO EMPLOYMENT DATA							5	5	5	5	5	5	N/A
01.0500	ORNAMENTAL HORTICULTURE	NO EMPLOYMENT DATA							132	134	135	136	137	138	N/A
01.0600	AGRICULTURAL RESOURCES	NO EMPLOYMENT DATA							122	124	125	126	127	128	N/A
01.0700	FORESTRY	NO EMPLOYMENT DATA							39	39	39	39	39	39	N/A
	TOTAL AGRICULTURE								1402	1430	1444	1458	1472	1486	1402
04.0100	ADVERTISING SERVICES	NO EMPLOYMENT DATA													N/A
04.0200	APPAREL AND ACCESSORIES	SEE 04.0800 FOR CURRENT EMPLOY. & PROJ. NEEDS							22	24	25	26	27	28	N/A
04.0400	FINANCE AND CREDIT	600	50	54	56	58	60	62	2	2	2	2	2	2	-48
04.0700	FOOD SERVICES	SEE 09.0203 FOR CURRENT EMPLOY. & PROJ. NEEDS							3	3	3	3	3	3	N/A
04.0800	GENERAL MERCHANDISE	10150	880	912	928	945	962	979	1030	1093	1126	1160	1195	1231	150
04.1000	HOME FURNISHINGS	NO EMPLOYMENT DATA													N/A
04.1200	INDUSTRIAL MARKETING	SEE 04.0800 FOR CURRENT EMPLOY. & PROJ. NEEDS							17	19	20	21	22	23	N/A
04.1300	INSURANCE	1250	80	90	95	101	107	114							-80
04.1500	PERSONAL SERVICES	NO EMPLOYMENT DATA													N/A
04.1700	REAL ESTATE	3994 NO PROJECTED NEEDS DATA							22	24	25	26	27	28	N/A
04.1900	TRANSPORTATION	150 NO PROJECTED NEEDS DATA													N/A
	TOTAL DISTRIBUTION	16144	1010	1056	1079	1104	1129	1155	1096	1165	1201	1238	1276	1315	86
07.0101	DENTAL ASSISTANT	240	40	44	46	48	50	52	40	42	43	44	45	46	0
07.0102	DENTAL HYGIENIST (AD)	50	10	12	13	14	15	16	8	8	8	8	8	8	-2
07.0103		50 NO PROJECTED NEEDS DATA													N/A
07.0203		350	50	56	59	63	67	71							-50
07.0299	OTHER MEDICAL LAB TECH	SEE 07.0203 FOR CURRENT EMPLOY. & PROJ. NEEDS							18	20	21	22	23	24	N/A
07.0301	NURSING (AD)	2600	290	311	322	333	345	357	58	62	64	66	68	70	-232
07.0302	PRACTICAL NURSING (VOC)	1200	180	200	211	222	234	246	168	178	183	188	194	200	-12
07.0303	NURSING ASSISTANT (AIDE)	2850	310	332	343	355	367	379	316	335	345	355	366	377	6
07.0501	RADIOLOGIC TECHNOLOGY	100	10	10	10	10	10	10	74	78	80	82	84	87	64
07.0600	OPHTHALMIC	NO EMPLOYMENT DATA													N/A
07.0800	MENTAL HEALTH TECHNOLOGY	SEE 07.9900 FOR CURRENT EMPLOY. & PROJ. NEEDS							4	4	4	4	4	4	N/A
07.0903	INHALATION THERAPY TECH	200	30	34	36	38	40	42							-30
07.9900	OTHER HEALTH	135	30	34	36	38	40	42	26	28	29	30	31	32	-4
	TOTAL HEALTH	7775	950	1033	1076	1121	1168	1215	712	755	777	799	823	848	-238
09.0201	CHILD CARE AND GUIDANCE	400	40	42	43	44	45	46	223	237	244	251	259	267	N/A
09.0202	CLOTHING MGMT. PROD & SERV	700	50	52	53	54	55	56	39	41	42	43	44	45	-11
09.0203	FOOD MGMT. PROD & SERV	8900	690	706	714	722	730	738	182	193	199	205	211	217	-508
09.0204	HOME FURN. EQUIP & SERV	NO EMPLOYMENT DATA													N/A
	TOTAL HOME ECONOMICS	10000	780	800	810	820	830	840	444	471	485	499	514	529	-296

STATE OF MICHIGAN
TABLE I REGION 03 (CONT)

EMPLOYMENT OPPORTUNITIES RELATED TO VOCATIONAL EDUCATION PROGRAMS

OE CODE	TITLE	CURRENT EMPLOYMENT	PROJECTED EXPANSION AND REPLACEMENT NEEDS 1976	1978	1979	1980	1981	1982	PROJECTED LABOR SUPPLY FROM VOCATIONAL-TECHNICAL EDUCATION 1976	1978	1979	1980	1981	1982	1976 SUPPLY MINUS NEEDS
14.0100	ACCTG & COMPUTING OCCUP	5750	490	514	526	539	552	565	208	220	227	234	241	248	-282
14.0201	COMPUTER & CONSOLE OPER	700	40	42	44	46	48	50	198	210	216	222	229	236	158
14.0203		200	10	10	10	10	10	10							-10
14.0300	FILING, OFF MACH, CLER OCC	1950	220	230	236	242	248	254	4	4	4	4	4	4	-216
14.0400	INFORMATION COMM OCCUP	900	30	30	30	30	30	30	6	6	6	6	6	6	-24
14.0500	MATERIALS SUPPORT, TRANS	NO EMPLOYMENT DATA							13	13	13	13	13	13	N/A
14.0600	PERSONNEL TRNG & REL OCC	NO EMPLOYMENT DATA							105	111	114	117	121	125	N/A
14.0700	STENO SECRETARIAL OCCUP	7050	870	927	957	988	1020	1053	225	239	246	253	261	269	-645
14.0800	SUPV & ADMIN MGMT OCCUP	NO EMPLOYMENT DATA							147	156	161	166	171	176	N/A
14.0900	TYPING & RELATED OCCUP	2700	290	304	312	320	328	336	190	202	208	214	220	227	-100
14.9700	CLERICAL LAB	SEE 14.0700 FOR CURRENT EMPLOY. & PROJ. NEEDS							115	122	126	130	134	138	N/A
14.9800	STENO CLERICAL LAB	SEE 14.0700 FOR CURRENT EMPLOY. & PROJ. NEEDS							562	596	614	632	651	671	N/A
14.9900	OTHER OFFICE	NO EMPLOYMENT DATA							172	182	187	193	199	205	N/A
	TOTAL OFFICE	19250	1950	2057	2115	2175	2236	2298	1945	2061	2122	2184	2250	2318	-5
16.0103	ARCHITECTURAL TECHNOLOGY	NO EMPLOYMENT DATA							41	43	44	45	46	47	N/A
16.0104	AUTOMOTIVE TECHNOLOGY	NO EMPLOYMENT DATA							72	76	78	80	82	84	N/A
16.0105	CHEMICAL TECHNOLOGY	750	10	10	10	10	10	10	11	11	11	11	11	11	1
16.0107	ELECTRICAL TECHNOLOGY	150 NO PROJECTED NEEDS DATA													N/A
16.0108	ELECTRONIC TECHNOLOGY	SEE 16.0107 FOR CURRENT EMPLOY. & PROJ. NEEDS							106	112	115	118	122	126	N/A
16.0109	ELECTROMECHANICAL TECH	NO EMPLOYMENT DATA													N/A
16.0110	ENVIRONMENTAL CONTROL TECHNO	EMPLOYMENT DATA							6	6	6	6	6	6	N/A
16.0111	INDUSTRIAL TECHNOLOGY	50 NO PROJECTED NEEDS DATA							27	29	30	31	32	33	N/A
16.0112	INSTRUMENTAL TECHNOLOGY	NO EMPLOYMENT DATA													N/A
16.0113	MECHANICAL TECHNOLOGY	50 NO PROJECTED NEEDS DATA							46	48	49	50	52	54	N/A
16.0114	METALLURGICAL TECHNOLOGY	NO EMPLOYMENT DATA													N/A
16.0117		50 NO PROJECTED NEEDS DATA													N/A
16.0602	FIRE & FIRE SAFETY TECH	350	30	32	34	36	38	40							-30
16.0603	POLICE SCIENCE	SEE 17.2802 FOR CURRENT EMPLOY. & PROJ. NEEDS							340	361	372	383	394	406	N/A
16.9900	OTHER TECHNICAL	NO EMPLOYMENT DATA							3	3	3	3	3	3	N/A
	TOTAL TECHNICAL	1400	40	42	44	46	48	50	652	689	708	727	748	770	612
17.0100	AIR CONDITIONING	350	30	34	36	38	40	42	51	55	57	59	61	63	21
17.0200	APPLIANCE REPAIR	350	20	20	20	20	20	20	19	21	22	23	24	25	-1
17.0301	BODY AND FENDER REPAIR	350	10	10	10	10	10	10	96	102	105	108	111	114	86
17.0302	AUTO MECHANICS	3000	90	92	93	94	95	96	844	895	922	950	979	1008	754
17.0399	OTHER AUTOMOTIVE	1800	20	20	20	20	20	20							-20
17.0500	BLUEPRINT READING	NO EMPLOYMENT DATA													N/A
17.0600	BUSINESS MACHINE MAINT	NO EMPLOYMENT DATA							4	4	4	4	4	4	N/A
17.0700	COMMERCIAL ART OCCUP	100 NO PROJECTED NEEDS DATA													N/A
17.1001	CARPENTRY	1250	50	53	53	54	55	56	565	599	617	636	655	675	515
17.1002	ELECTRICITY	SEE 17.1400 FOR CURRENT EMPLOY. & PROJ. NEEDS							24	26	27	28	29	30	N/A
17.1004	MASONRY	570	20	20	20	20	20	20							-20
17.1007	PLUMBING & PIPEFITTING	1800	90	94	97	100	103	106	7	7	7	7	7	7	-83

STATE OF MICHIGAN
TABLE I REGION 03 (CONT)

EMPLOYMENT OPPORTUNITIES RELATED TO VOCATIONAL EDUCATION PROGRAMS

OE CODE	TITLE	CURRENT EMPLOYMENT	PROJECTED EXPANSION AND REPLACEMENT NEEDS						PROJECTED LABOR SUPPLY FROM VOCATIONAL-TECHNICAL EDUCATION						1976 SUPPLY MINUS NEEDS
			1976	1978	1979	1980	1981	1982	1976	1978	1979	1980	1981	1982	
17.1099	OTHER CONST & MAINT TRADES	2150	55	55	55	55	55	55	18	20	21	22	23	24	-37
17.1100	CUSTODIAL SERVICE	7100	610	643	660	678	696	715	33	35	36	37	38	39	-577
17.1200		2600	130	136	139	142	145	148							-130
17.1300	DRAFTING OCCUPATIONS	700	30	32	33	34	35	36	68	72	74	76	78	80	38
17.1400	ELECTRICAL OCCUPATIONS	1950	100	106	109	112	115	118	19	21	22	23	24	25	-81
17.1500	ELECTRONIC OCCUPATIONS	250	NO PROJECTED NEEDS DATA						255	271	279	287	296	305	N/A
17.1700	FOREMAN SUPV & MGMT DEVEL	NO EMPLOYMENT DATA													N/A
17.1900	GRAPHIC ARTS OCCUP	250	10	10	10	10	10	10	86	92	95	98	101	104	76
17.2100	INSTRUMENT MAINT & REPAIR	NO EMPLOYMENT DATA													N/A
17.2302	MACHINE SHOP	2550	70	72	73	74	75	76	238	252	260	268	276	284	168
17.2305	SHEET METAL	550	10	10	10	10	10	10	10	10	10	10	10	10	0
17.2306	WELDING & CUTTING	2850	130	136	139	142	146	150	313	332	342	352	363	374	183
17.2399	OTHER METALWORKING OCCUP	NO EMPLOYMENT DATA													N/A
17.2400	METALLURGY OCCUP	NO EMPLOYMENT DATA													N/A
17.2602	COSMETOLOGY	1400	160	168	172	176	181	186	104	110	113	116	119	123	-56
17.2802		1450	100	108	112	116	121	126							-100
17.3100	SMALL ENGINE REPAIR	NO EMPLOYMENT DATA							175	185	191	197	203	209	N/A
17.3200	STATIONARY ENERGY SOURCES	950	NO PROJECTED NEEDS DATA												N/A
17.3500	UPHOLSTERING	100	NO PROJECTED NEEDS DATA												N/A
17.3600	WOODWORKING OCCUP	200	NO PROJECTED NEEDS DATA												N/A
17.9900	OTHER TRADE & INDUSTRY	NO EMPLOYMENT DATA							10	10	10	10	10	10	N/A
	TOTAL TRADE & INDUSTRY	34620	1735	1818	1861	1905	1952	2000	2939	3119	3214	3311	3411	3513	1204
	TOTAL REGION 03	89189	6465	6806	6985	7171	7363	7558	9190	9690	9951	10216	10494	10779	2765

STATE OF MICHIGAN
TABLE I REGION 04

EMPLOYMENT OPPORTUNITIES RELATED TO VOCATIONAL EDUCATION PROGRAMS

OE CODE	TITLE	CURRENT EMPLOYMENT	PROJECTED EXPANSION AND REPLACEMENT NEEDS 1976	1978	1979	1980	1981	1982	PROJECTED LABOR SUPPLY FROM VOCATIONAL-TECHNICAL EDUCATION 1976	1978	1979	1980	1981	1982	1976 SUPPLY MINUS NEEDS
01.0100	AGRICULTURAL PRODUCTION	NO EMPLOYMENT DATA							100	102	103	104	105	106	N/A
01.0200	AGRICULTURAL SUPP/SERV	NO EMPLOYMENT DATA							2	2	2	2	2	2	N/A
01.0300	AGRICULTURAL MECHANICS	NO EMPLOYMENT DATA							34	34	34	34	34	34	N/A
01.0400	AGRICULTURAL PRODUCTS	NO EMPLOYMENT DATA							10	10	10	10	10	10	N/A
01.0500	ORNAMENTAL HORTICULTURE	NO EMPLOYMENT DATA							128	130	131	132	133	134	N/A
01.0600	AGRICULTURAL RESOURCES	NO EMPLOYMENT DATA							23	23	23	23	23	23	N/A
01.9900	OTHER AGRICULTURE	NO EMPLOYMENT DATA							19	19	19	19	19	19	N/A
	TOTAL AGRICULTURE								316	320	322	324	326	328	316
04.0100	ADVERTISING SERVICES	NO EMPLOYMENT DATA							56	60	62	64	66	68	N/A
04.0400		450	40	44	46	48	50	52							-40
04.0600	FOOD DISTRIBUTION	SEE 09.0203 FOR CURRENT EMPLOY. & PROJ. NEEDS							56	60	62	64	66	68	N/A
04.0700	FOOD SERVICES	NO EMPLOYMENT DATA													N/A
04.0800	GENERAL MERCHANDISE	8550	710	736	749	762	776	790	903	958	987	1017	1048	1079	193
04.0900	HARDWARE, BLDG MATERIALS	NO EMPLOYMENT DATA													N/A
04.1100	HOTEL AND LODGING	NO EMPLOYMENT DATA													N/A
04.1300	INSURANCE	900	50	56	59	63	67	71							-50
04.1700	REAL ESTATE	3100 NO PROJECTED NEEDS DATA													N/A
04.1900		100 NO PROJECTED NEEDS DATA													N/A
04.9900	OTHER DISTRIBUTION	SEE 04.0800 FOR CURRENT EMPLOY. & PROJ. NEEDS							312	331	341	351	362	373	N/A
	TOTAL DISTRIBUTION	13100	800	836	854	873	893	913	1327	1409	1452	1496	1542	1588	527
07.0101	DENTAL ASSISTANT	180	30	32	33	34	35	36	15	15	15	15	15	15	-15
07.0102	DENTAL HYGIENIST (AD)	50	10	12	13	14	15	16	35	37	38	39	40	41	25
07.0203		250	40	45	48	51	54	57							-40
07.0299	OTHER MEDICAL LAB TECH	SEE 07.0203 FOR CURRENT EMPLOY. & PROJ. NEEDS							106	112	115	118	122	126	N/A
07.0301	NURSING (AD)	2300	260	278	288	298	308	319	131	139	143	147	151	156	-129
07.0302	PRACTICAL NURSING (VOC)	1200	180	200	211	222	234	246							-180
07.0303	NURSING ASSISTANT (AIDE)	2350	260	278	287	297	307	317	207	219	226	233	240	247	-53
07.0501	RADIOLOGIC TECHNOLOGY	150	20	22	23	24	25	26							-20
07.0903		150	20	22	23	24	25	27							-20
07.9900	OTHER HEALTH	189	30	34	36	38	40	42	67	71	73	75	77	79	37
	TOTAL HEALTH	6819	850	923	962	1002	1043	1086	561	593	610	627	645	664	-289
09.0201	CHILD CARE AND GUIDANCE	200	30	32	33	34	35	36	61	65	67	69	71	73	N/A
09.0202	CLOTHING MGMT, PROD & SERV	700	50	52	53	54	55	56	4	4	4	4	4	4	-46
09.0203	FOOD MGMT, PROD & SERV	5600	430	440	445	450	455	460	148	157	162	167	172	177	-282
09.0205	INSTIT & HOME MGMT & SERV	NO EMPLOYMENT DATA							1	1	1	1	1	1	N/A
	TOTAL HOME ECONOMICS	6500	510	524	531	538	490	496	214	227	234	241	248	255	-266
14.0100	ACCTG & COMPUTING OCCUP	4200	350	367	376	385	394	403	143	151	156	161	166	171	-207
14.0201	COMPUTER & CONSOLE OPER	850	60	64	66	68	70	73	82	87	90	93	96	99	22

STATE OF MICHIGAN
TABLE I REGION 04 (CONT)

EMPLOYMENT OPPORTUNITIES RELATED TO VOCATIONAL EDUCATION PROGRAMS

OE CODE	TITLE	CURRENT EMPLOYMENT	PROJECTED EXPANSION AND REPLACEMENT NEEDS						PROJECTED LABOR SUPPLY FROM VOCATIONAL-TECHNICAL EDUCATION						1976 SUPPLY MINUS NEEDS
			1976	1978	1979	1980	1981	1982	1976	1978	1979	1980	1981	1982	
14.0203		250	10	10	10	10	10	10							-10
14.0300	FILING, OFF MACH, CLER OCC	1650	180	188	193	198	203	208	13	13	13	13	13	13	-167
14.0400		850	30	30	30	30	30	30							-30
14.0500	MATERIALS SUPPORT, TRANS	NO EMPLOYMENT DATA							6	6	6	6	6	6	N/A
14.0600	PERSONNEL TRNG & REL OCC	NO EMPLOYMENT DATA							14	14	14	14	14	14	N/A
14.0700	STENO SECRETARIAL OCCUP	5500	650	692	714	737	761	785	368	390	402	414	426	439	-282
14.0800	SUPV & ADMIN MGMT OCCUP	NO EMPLOYMENT DATA							22	24	25	26	27	28	N/A
14.0900	TYPING & RELATED OCCUP	2000	220	232	238	244	250	256	174	184	190	196	202	208	-46
14.9700	CLERICAL LAB	SEE 14.0700 FOR CURRENT EMPLOY. & PROJ. NEEDS							81	85	88	91	94	97	N/A
14.9800	STENO CLERICAL LAB	SEE 14.0700 FOR CURRENT EMPLOY. & PROJ. NEEDS							412	437	450	464	478	492	N/A
14.9900	OTHER OFFICE	NO EMPLOYMENT DATA							10	10	10	10	10	10	N/A
	TOTAL OFFICE	15300	1500	1583	1627	1672	1718	1765	1325	1401	1444	1488	1532	1577	-175
16.0103	ARCHITECTURAL TECHNOLOGY	NO EMPLOYMENT DATA							41	43	44	45	46	47	N/A
16.0107		100 NO PROJECTED NEEDS DATA													N/A
16.0108	ELECTRONIC TECHNOLOGY	SEE 16.0107 FOR CURRENT EMPLOY. & PROJ. NEEDS							77	81	83	85	88	91	N/A
16.0110	ENVIRONMENTAL CONTROL TECHNO	EMPLOYMENT DATA							5	5	5	5	5	5	N/A
16.0111		100 NO PROJECTED NEEDS DATA													N/A
16.0113	MECHANICAL TECHNOLOGY	150 NO PROJECTED NEEDS DATA							91	97	100	103	106	109	N/A
16.0117	SCIENTIFIC DATA TECHNOLOGY	50 NO PROJECTED NEEDS DATA							24	26	27	28	29	30	N/A
16.0601	COMMERCIAL PILOT TRAINING	NO EMPLOYMENT DATA													N/A
16.0602		300	20	22	23	24	25	26							-20
16.9900	OTHER TECHNICAL	NO EMPLOYMENT DATA							56	60	62	64	66	68	N/A
	TOTAL TECHNICAL	700	20	22	23	24	25	26	294	312	321	330	340	350	274
17.0100	AIR CONDITIONING	200	20	22	23	24	25	26	29	31	32	33	34	35	9
17.0200	APPLIANCE REPAIR	250	10	10	10	10	10	10	7	7	7	7	7	7	-3
17.0301	BODY AND FENDER REPAIR	350	10	10	10	10	10	10	149	158	163	168	173	178	139
17.0302	AUTO MECHANICS	3850	110	112	113	114	115	116	463	491	506	521	537	553	353
17.0399		1250	20	20	20	20	20	20							-20
17.0400	AVIATION OCCUPATIONS	NO EMPLOYMENT DATA							14	14	14	14	14	14	N/A
17.0600		50 NO PROJECTED NEEDS DATA													N/A
17.0700	COMMERCIAL ART OCCUP	50 NO PROJECTED NEEDS DATA							21	23	24	25	26	27	N/A
17.0900	COMMERCIAL PHOTOGRAPHY	NO EMPLOYMENT DATA							10	10	10	10	10	10	N/A
17.1001	CARPENTRY	2600	110	114	116	118	120	122	216	229	236	243	250	258	106
17.1002	ELECTRICITY	SEE 17.1400 FOR CURRENT EMPLOY. & PROJ. NEEDS							9	9	9	9	9	9	N/A
17.1004		300	10	10	10	10	10	10							-10
17.1007	PLUMBING & PIPEFITTING	1400	70	74	76	78	80	82							-70
17.1099		1500	30	30	30	30	30	30							-30
17.1100	CUSTODIAL SERVICE	5800	480	506	520	534	548	563	26	28	29	30	31	32	-454
17.1200	DIESEL MECHANIC	2400	110	116	119	122	125	128	36	38	39	40	41	42	-74
17.1300	DRAFTING OCCUPATIONS	850	40	42	43	44	45	46	76	80	82	84	87	90	36
17.1400	ELECTRICAL OCCUPATIONS	1800	90	94	97	100	103	106	22	24	25	26	27	28	-68
17.1500	ELECTRONIC OCCUPATIONS	250 NO PROJECTED NEEDS DATA							167	177	182	187	193	199	N/A

STATE OF MICHIGAN
TABLE I REGION 04 (CONT)

EMPLOYMENT OPPORTUNITIES RELATED TO VOCATIONAL EDUCATION PROGRAMS

OE CODE	TITLE	CURRENT EMPLOYMENT	PROJECTED EXPANSION AND REPLACEMENT NEEDS						PROJECTED LABOR SUPPLY FROM VOCATIONAL-TECHNICAL EDUCATION						1976 SUPPLY MINUS NEEDS
			1976	1978	1979	1980	1981	1982	1976	1978	1979	1980	1981	1982	
17.1900	GRAPHIC ARTS OCCUP	150	NO PROJECTED NEEDS DATA						163	173	178	183	188	194	N/A
17.2302	MACHINE SHOP	4350	150	154	156	158	160	162	70	74	76	78	80	82	-80
17.2305		550	10	10	10	10	10	10							-10
17.2306	WELDING & CUTTING	3150	150	158	162	166	170	174	147	156	161	166	171	176	-3
17.2399	OTHER METALWORKING OCCUP	NO EMPLOYMENT DATA													N/A
17.2602	COSMETOLOGY	1200	130	136	140	144	148	152	63	67	69	71	73	75	-67
17.2802	LAW ENFORCEMENT TRAINING	1550	120	130	135	140	146	152	62	66	68	70	72	74	-58
17.3100	SMALL ENGINE REPAIR	NO EMPLOYMENT DATA							79	83	85	88	91	94	N/A
17.3200		400	NO PROJECTED NEEDS DATA												N/A
17.3500		150	NO PROJECTED NEEDS DATA												N/A
17.3600	WOODWORKING OCCUP	100	NO PROJECTED NEEDS DATA												N/A
17.9900	OTHER TRADE & INDUSTRY	NO EMPLOYMENT DATA							57	61	63	65	67	69	N/A
	TOTAL TRADE & INDUSTRY	34500	1670	1748	1790	1832	1875	1919	1886	1999	2058	2118	2181	2246	216
	TOTAL REGION 04	76919	5350	5636	5787	5941	6099	6261	5923	6261	6441	6624	6814	7008	603

STATE OF MICHIGAN
TABLE I REGION 05

EMPLOYMENT OPPORTUNITIES RELATED TO VOCATIONAL EDUCATION PROGRAMS

OE CODE	TITLE	CURRENT EMPLOYMENT	PROJECTED EXPANSION AND REPLACEMENT NEEDS 1976	1978	1979	1980	1981	1982	PROJECTED LABOR SUPPLY FROM VOCATIONAL-TECHNICAL EDUCATION 1976	1978	1979	1980	1981	1982	1976 SUPPLY MINUS NEEDS
01.0100	AGRICULTURAL PRODUCTION	NO EMPLOYMENT DATA							253	259	262	265	268	271	N/A
01.0200	AGRICULTURAL SUPP/SERV	NO EMPLOYMENT DATA							9	9	9	9	9	9	N/A
01.0300	AGRICULTURAL MECHANICS	NO EMPLOYMENT DATA							100	102	103	104	105	106	N/A
01.0500	ORNAMENTAL HORTICULTURE	NO EMPLOYMENT DATA							79	81	82	83	84	85	N/A
01.0600	AGRICULTURAL RESOURCES	NO EMPLOYMENT DATA													N/A
	TOTAL AGRICULTURE								441	451	456	461	466	471	441
04.0400		600	50	54	56	58	60	62							-50
04.0600	FOOD DISTRIBUTION	SEE 09.0203 FOR CURRENT EMPLOY. & PROJ. NEEDS							50	54	56	58	60	62	N/A
04.0800	GENERAL MERCHANDISE	7150	600	622	633	644	656	668	1033	1096	1129	1163	1198	1234	433
04.1300		1150	80	90	95	101	107	114							-80
04.1600	PETROLEUM	SEE 04.0800 FOR CURRENT EMPLOY. & PROJ. NEEDS							24	26	27	28	29	30	N/A
04.1700	REAL ESTATE	2038 NO PROJECTED NEEDS DATA							27	29	30	31	32	33	N/A
04.1800	RECREATION AND TOURISM	SEE 04.0800 FOR CURRENT EMPLOY. & PROJ. NEEDS							18	20	21	22	23	24	N/A
04.1900	TRANSPORTATION	50 NO PROJECTED NEEDS DATA							1	1	1	1	1	1	N/A
04.9900		NO EMPLOYMENT OR PROJECTED NEEDS DATA							NO LABOR SUPPLY DATA						N/A
	TOTAL DISTRIBUTION	10988	730	766	784	803	823	844	1153	1226	1264	1303	1343	1384	423
07.0101	DENTAL ASSISTANT	200	30	32	33	34	35	36	13	13	13	13	13	13	-17
07.0102	DENTAL HYGIENIST (AD)	50 NO PROJECTED NEEDS DATA							47	49	50	52	54	56	N/A
07.0203		200	30	34	36	38	40	42							-30
07.0299	OTHER MEDICAL LAB TECH	SEE 07.0203 FOR CURRENT EMPLOY. & PROJ. NEEDS							10	10	10	10	10	10	N/A
07.0301	NURSING (AD)	1800	200	214	221	229	237	245	102	108	111	114	117	121	-98
07.0302	PRACTICAL NURSING (VOC)	1250	180	200	211	222	234	246	148	157	162	167	172	177	-32
07.0303	NURSING ASSISTANT (AIDE)	2300	250	268	277	286	296	306	122	130	134	138	142	146	-128
07.0499	OTHER NURSING	SEE 07.0302 FOR CURRENT EMPLOY. & PROJ. NEEDS							15	15	15	15	15	15	N/A
07.0501	RADIOLOGIC TECHNOLOGY	200	30	32	33	34	35	37	37	39	40	41	42	43	7
07.0903	INHALATION THERAPY TECH	350	50	56	59	63	67	71	16	16	16	16	16	16	-34
07.9900	OTHER HEALTH	135	40	45	48	51	54	57	2	2	2	2	2	2	-38
	TOTAL HEALTH	6485	810	881	918	957	998	1040	512	539	553	568	583	599	-298
09.0201	CHILD CARE AND GUIDANCE	300	40	42	43	44	45	46	130	138	142	146	150	155	N/A
09.0202	CLOTHING MGMT, PROD & SERV	450	30	32	33	34	35	36	11	11	11	11	11	11	-19
09.0203	FOOD MGMT, PROD & SERV	6200	470	480	485	490	495	500	315	334	344	354	365	376	-155
09.0205	INSTIT & HOME MGMT & SERV	NO EMPLOYMENT DATA							15	15	15	15	15	15	N/A
	TOTAL HOME ECONOMICS	6950	540	554	561	568	575	582	471	498	512	526	541	557	-29
14.0100	ACCTG & COMPUTING OCCUP	4450	370	388	397	407	417	427	205	217	224	231	238	245	-165
14.0201	COMPUTER & CONSOLE OPER	800	60	64	66	68	70	73	81	85	88	91	94	97	21
14.0203	PROGRAMMERS	300	20	22	23	24	25	26	17	19	20	21	22	23	-3
14.0300	FILING, OFF MACH, CLER OCC	2100	230	242	248	254	260	266	63	67	69	71	73	75	-167
14.0400	INFORMATION COMM OCCUP	950	30	30	30	30	30	30							-30

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TABLE I REGION 05 (CONT)

EMPLOYMENT OPPORTUNITIES RELATED TO VOCATIONAL EDUCATION PROGRAMS

OE CODE	TITLE	CURRENT EMPLOYMENT	PROJECTED EXPANSION AND REPLACEMENT NEEDS 1976	1978	1979	1980	1981	1982	PROJECTED LABOR SUPPLY FROM VOCATIONAL-TECHNICAL EDUCATION 1976	1978	1979	1980	1981	1982	1976 SUPPLY MINUS NEEDS
14.0700	STENO SECRETARIAL OCCUP	6550	810	863	891	920	949	979	329	349	359	370	381	392	-481
14.0800	SUPV & ADMIN MGMT OCCUP	NO EMPLOYMENT DATA							63	67	69	71	73	75	N/A
14.0900	TYPING & RELATED OCCUP	1950	220	232	238	244	250	256	69	73	75	77	79	81	-151
14.9800	STENO CLERICAL LAB	SEE 14.0700 FOR CURRENT EMPLOY. & PROJ. NEEDS							348	369	380	391	403	415	N/A
14.9900	OTHER OFFICE	NO EMPLOYMENT DATA							131	139	143	147	151	156	N/A
	TOTAL OFFICE	17100	1740	1841	1893	1947	2001	2057	1306	1385	1427	1470	1514	1559	-434
16.0104	AUTOMOTIVE TECHNOLOGY	NO EMPLOYMENT DATA							25	27	28	29	30	31	N/A
16.0105	CHEMICAL TECHNOLOGY	NO EMPLOYMENT DATA							8	8	8	8	8	8	N/A
16.0107		150 NO PROJECTED NEEDS DATA													N/A
16.0108	ELECTRONIC TECHNOLOGY	SEE 16.0107 FOR CURRENT EMPLOY. & PROJ. NEEDS							46	48	49	50	52	54	N/A
16.0111		50 NO PROJECTED NEEDS DATA													N/A
16.0113	MECHANICAL TECHNOLOGY	50 NO PROJECTED NEEDS DATA							38	40	41	42	43	44	N/A
16.0117	SCIENTIFIC DATA TECHNOLOGY	150	10	10	10	10	10	10	26	28	29	30	31	32	16
16.0602	FIRE & FIRE SAFETY TECH	400	30	32	34	36	38	40	12	12	12	12	12	12	-18
16.0603	POLICE SCIENCE	SEE 17.2802 FOR CURRENT EMPLOY. & PROJ. NEEDS							19	21	22	23	24	25	N/A
16.9900	OTHER TECHNICAL	NO EMPLOYMENT DATA							54	58	60	62	64	66	N/A
	TOTAL TECHNICAL	800	40	42	44	46	48	50	228	242	249	256	264	272	188
17.0100	AIR CONDITIONING	200	20	22	23	24	25	26	45	47	48	49	50	52	25
17.0200	APPLIANCE REPAIR	300	10	10	10	10	10	10	2	2	2	2	2	2	-8
17.0301	BODY AND FENDER REPAIR	NO EMPLOYMENT DATA							237	251	259	267	275	283	N/A
17.0302	AUTO MECHANICS	1600	50	52	53	54	55	56	569	604	622	641	660	680	519
17.0399		1200	10	10	10	10	10	10							-10
17.0400	AVIATION OCCUPATIONS	NO EMPLOYMENT DATA							26	28	29	30	31	32	N/A
17.0500	BLUEPRINT READING	NO EMPLOYMENT DATA							6	6	6	6	6	6	N/A
17.0600	BUSINESS MACHINE MAINT	50 NO PROJECTED NEEDS DATA													N/A
17.0700	COMMERCIAL ART OCCUP	200	10	10	10	10	10	10	41	43	44	45	46	47	31
17.0900	COMMERCIAL PHOTOGRAPHY	NO EMPLOYMENT DATA							9	9	9	9	9	9	N/A
17.1001	CARPENTRY	1550	60	62	63	64	65	66	440	467	481	495	510	525	380
17.1002	ELECTRICITY	SEE 17.1400 FOR CURRENT EMPLOY. & PROJ. NEEDS							27	29	30	31	32	33	N/A
17.1004	MASONRY	230 NO PROJECTED NEEDS DATA													N/A
17.1007	PLUMBING & PIPEFITTING	900	50	52	53	54	55	56							-50
17.1099	OTHER CONST & MAINT TRADES	1450	30	30	30	30	30	30	15	15	15	15	15	15	-15
17.1100	CUSTODIAL SERVICE	5750	480	506	520	534	548	563	21	23	24	25	26	27	-459
17.1200	DIESEL MECHANIC	1950	90	94	96	98	100	102	4	4	4	4	4	4	-86
17.1300	DRAFTING OCCUPATIONS	650	30	32	33	34	35	36	94	100	103	106	109	112	64
17.1400	ELECTRICAL OCCUPATIONS	950	50	52	53	54	55	56	59	63	65	67	69	71	9
17.1500	ELECTRONIC OCCUPATIONS	200 NO PROJECTED NEEDS DATA							111	117	121	125	129	133	N/A
17.1900	GRAPHIC ARTS OCCUP	600	30	32	33	34	35	36	100	106	109	112	115	118	70
17.2100	INSTRUMENT MAINT & REPAIR	NO EMPLOYMENT DATA													N/A
17.2302	MACHINE SHOP	2300	60	62	63	64	65	66	240	254	262	270	278	286	180
17.2305		350 NO PROJECTED NEEDS DATA													N/A
17.2306	WELDING & CUTTING	1850	90	94	96	98	100	103	232	246	253	261	269	277	142

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TABLE I REGION 05 (CONT)

EMPLOYMENT OPPORTUNITIES RELATED TO VOCATIONAL EDUCATION PROGRAMS

OE CODE	TITLE	CURRENT EMPLOYMENT	PROJECTED EXPANSION AND REPLACEMENT NEEDS						PROJECTED LABOR SUPPLY FROM VOCATIONAL-TECHNICAL EDUCATION						1976 SUPPLY MINUS NEEDS
			1976	1978	1979	1980	1981	1982	1976	1978	1979	1980	1981	1982	
17.2399	OTHER METALWORKING OCCUP	NO EMPLOYMENT DATA													N/A
17.2602	COSMETOLOGY	950	110	116	119	122	125	128	63	67	69	71	73	75	-47
17.2700	PLASTICS CCCUP	NO EMPLOYMENT DATA													N/A
17.2802	LAW ENFORCEMENT TRAINING	1150	80	86	89	93	97	101	79	83	85	88	91	94	-1
17.3000	REFRIGERATION	SEE 17.0100 FOR CURRENT EMPLOY. & PROJ. NEEDS							25	27	28	29	30	31	N/A
17.3100	SMALL ENGINE REPAIR	NO EMPLOYMENT DATA							131	139	143	147	151	156	N/A
17.3200		550 NO PROJECTED NEEDS DATA													N/A
17.3500	UPHOLSTERING	150 NO PROJECTED NEEDS DATA							16	16	16	16	16	16	N/A
17.3600	WOODWORKING OCCUP	200 NO PROJECTED NEEDS DATA							7	7	7	7	7	7	N/A
17.9900	OTHER TRADE & INDUSTRY	NO EMPLOYMENT DATA							2933	3112	3205	3301	3400	3502	N/A
	TOTAL TRADE & INDUSTRY	25280	1260	1322	1354	1387	1420	1455	5532	5865	6039	6219	6403	6593	4272
	TOTAL REGION 05	67603	5120	5406	5554	5708	5865	6028	9643	10206	10500	10803	11114	11435	4563

STATE OF MICHIGAN
TABLE I REGION 06

EMPLOYMENT OPPORTUNITIES RELATED TO VOCATIONAL EDUCATION PROGRAMS

OE CODE	TITLE	CURRENT EMPLOYMENT	PROJECTED EXPANSION AND REPLACEMENT NEEDS 1976	1978	1979	1980	1981	1982	PROJECTED LABOR SUPPLY FROM VOCATIONAL-TECHNICAL EDUCATION 1976	1978	1979	1980	1981	1982	1976 SUPPLY MINUS NEEDS
01.0100	AGRICULTURAL PRODUCTION	NO EMPLOYMENT DATA							154	158	160	162	164	166	N/A
01.0200	AGRICULTURAL SUPP/SERV	NO EMPLOYMENT DATA							8	8	8	8	8	8	N/A
01.0300	AGRICULTURAL MECHANICS	NO EMPLOYMENT DATA							78	80	81	82	83	84	N/A
01.0500	ORNAMENTAL HORTICULTURE	NO EMPLOYMENT DATA							37	37	37	37	37	37	N/A
01.0600	AGRICULTURAL RESOURCES	NO EMPLOYMENT DATA							8	8	8	8	8	8	N/A
01.0700	FORESTRY	NO EMPLOYMENT DATA							21	21	21	21	21	21	N/A
	TOTAL AGRICULTURE								306	312	315	318	321	324	306
04.0100	ADVERTISING SERVICES	NO EMPLOYMENT DATA							22	24	25	26	27	28	N/A
04.0300	AUTOMOTIVE	NO EMPLOYMENT DATA													N/A
04.0400	FINANCE AND CREDIT	500	30	32	33	34	35	36	10	10	10	10	10	10	-20
04.0600	FOOD DISTRIBUTION	NO EMPLOYMENT DATA													N/A
04.0700	FOOD SERVICES	SEE 09.0203 FOR CURRENT EMPLOY. & PROJ. NEEDS							21	23	24	25	26	27	N/A
04.0800	GENERAL MERCHANDISE	7000	590	612	623	634	645	657	499	529	545	561	578	595	-91
04.0900	HARDWARE, BLDG MATERIALS	NO EMPLOYMENT DATA													N/A
04.1100	HOTEL AND LODGING	SEE 04.0800 FOR CURRENT EMPLOY. & PROJ. NEEDS							33	35	36	37	38	39	N/A
04.1200	INDUSTRIAL MARKETING	NO EMPLOYMENT DATA													N/A
04.1300	INSURANCE	1250	80	90	95	101	107	114							-80
04.1400	INTERNATIONAL TRADE	NO EMPLOYMENT DATA													N/A
04.1500	PERSONAL SERVICES	NO EMPLOYMENT DATA													N/A
04.1600	PETROLEUM	NO EMPLOYMENT DATA													N/A
04.1700	REAL ESTATE	2284 NO PROJECTED NEEDS DATA							102	108	111	114	117	121	N/A
04.1800	RECREATION AND TOURISM	NO EMPLOYMENT DATA													N/A
04.1900	TRANSPORTATION	50 NO PROJECTED NEEDS DATA							13	13	13	13	13	13	N/A
04.9900	OTHER DISTRIBUTION	SEE 04.0800 FOR CURRENT EMPLOY. & PROJ. NEEDS							82	87	90	93	96	99	N/A
	TOTAL DISTRIBUTION	11084	700	734	751	769	787	807	782	829	854	879	905	932	82
07.0101	DENTAL ASSISTANT	150	20	22	23	24	25	26	13	13	13	13	13	13	-7
07.0102	DENTAL HYGIENIST (AD)	50	10	12	13	14	15	16	18	20	21	22	23	24	8
07.0203		250	40	45	48	51	54	57							-40
07.0299	OTHER MEDICAL LAB TECH	SEE 07.0203 FOR CURRENT EMPLOY. & PROJ. NEEDS							15	15	15	15	15	15	N/A
07.0301	NURSING (AD)	1350	150	160	166	172	178	184	45	47	48	49	50	52	-105
07.0302	PRACTICAL NURSING (VOC)	550	80	88	93	98	103	108	65	69	71	73	75	77	-15
07.0303	NURSING ASSISTANT (AIDE)	1100	120	128	132	136	141	146	24	26	27	28	29	30	-96
07.0305	SURGICAL TECHNOLOGY	NO EMPLOYMENT DATA							10	10	10	10	10	10	N/A
07.0501	RADIOLOGIC TECHNOLOGY	100	10	10	10	10	10	10	207	219	226	233	240	247	197
07.0903	INHALATION THERAPY TECH	150	20	22	23	24	25	27	18	20	21	22	23	24	-2
07.0904	MEDICAL ASSISTANT	NO EMPLOYMENT DATA							22	24	25	26	27	28	N/A
07.9900	OTHER HEALTH	189	40	45	48	51	54	57	7	7	7	7	7	7	-33
	TOTAL HEALTH	3889	490	532	556	580	605	631	444	470	484	498	512	527	-46
09.0201	CHILD CARE AND GUIDANCE	300	30	32	33	34	35	36	170	180	185	191	197	203	N/A
09.0202	CLOTHING MGMT, PROD & SERV	550	50	52	53	54	55	56	16	16	16	16	16	16	-34

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EMPLOYMENT OPPORTUNITIES RELATED TO VOCATIONAL EDUCATION PROGRAMS

OE CODE	TITLE	CURRENT EMPLOYMENT	PROJECTED EXPANSION AND REPLACEMENT NEEDS 1976	1978	1979	1980	1981	1982	PROJECTED LABOR SUPPLY FROM VOCATIONAL-TECHNICAL EDUCATION 1976	1978	1979	1980	1981	1982	1976 SUPPLY MINUS NEEDS
09.0203	FOOD MGMT, PROD & SERV	6600	480	490	495	500	506	512	49	52	54	56	58	60	-431
09.0205	INSTIT & HOME MGMT & SERV	NO EMPLOYMENT DATA							3	3	3	3	3	3	N/A
	TOTAL HOME ECONOMICS	7450	560	574	581	588	596	604	238	251	258	266	274	282	-292
14.0100	ACCTG & COMPUTING OCCUP	4000	340	356	365	374	383	392	521	553	570	587	605	623	181
14.0201	COMPUTER & CONSOLE OPER	1000	70	76	79	82	85	88	158	168	173	178	183	188	88
14.0203		500	30	32	33	34	35	36							-30
14.0300		2500	250	262	268	274	281	288							-250
14.0400		550	20	20	20	20	20	20							-20
14.0700	STENO SECRETARIAL OCCUP	7200	860	916	945	975	1006	1038	552	586	604	622	641	660	-308
14.0800	SUPV & ADMIN MGMT OCCUP	NO EMPLOYMENT DATA							134	142	146	150	155	160	N/A
14.0900	TYPING & RELATED OCCUP	1850	200	210	215	220	226	232	770	817	842	867	893	920	570
14.9700	CLERICAL LAB	SEE 14.0700 FOR CURRENT EMPLOY. & PROJ. NEEDS							32	34	35	36	37	38	N/A
14.9800	STENO CLERICAL LAB	SEE 14.0700 FOR CURRENT EMPLOY. & PROJ. NEEDS							148	157	162	167	172	177	N/A
14.9900	OTHER OFFICE	NO EMPLOYMENT DATA							52	56	58	60	62	64	N/A
	TOTAL OFFICE	17600	1770	1872	1925	1979	2036	2094	2367	2513	2590	2667	2748	2830	597
16.0103	ARCHITECTURAL TECHNOLOGY	NO EMPLOYMENT DATA							2	2	2	2	2	2	N/A
16.0106	CIVIL TECHNOLOGY	NO EMPLOYMENT DATA							33	35	36	37	38	39	N/A
16.0107	ELECTRICAL TECHNOLOGY	150 NO PROJECTED NEEDS DATA													N/A
16.0108	ELECTRONIC TECHNOLOGY	SEE 16.0107 FOR CURRENT EMPLOY. & PROJ. NEEDS							16	16	16	16	16	16	N/A
16.0109	ELECTROMECHANICAL TECH	NO EMPLOYMENT DATA													N/A
16.0111		50 NO PROJECTED NEEDS DATA													N/A
16.0113	MECHANICAL TECHNOLOGY	NO EMPLOYMENT DATA							4	4	4	4	4	4	N/A
16.0117		150	10	10	10	10	10	10							-10
16.0601	COMMERCIAL PILOT TRAINING	NO EMPLOYMENT DATA							4	4	4	4	4	4	N/A
16.0602	FIRE & FIRE SAFETY TECH	350	20	22	23	24	25	26	8	8	8	8	8	8	-12
16.0603	POLICE SCIENCE	SEE 17.2802 FOR CURRENT EMPLOY. & PROJ. NEEDS							69	73	75	77	79	81	N/A
16.9900	OTHER TECHNICAL	NO EMPLOYMENT DATA							29	31	32	33	34	35	N/A
	TOTAL TECHNICAL	700	30	32	33	34	35	36	165	173	177	181	185	189	135
17.0100	AIR CONDITIONING	250	20	22	23	24	25	26	43	45	46	47	48	49	23
17.0200	APPLIANCE REPAIR	300	10	10	10	10	10	10	8	8	8	8	8	8	-2
17.0301	BODY AND FENDER REPAIR	NO EMPLOYMENT DATA							102	108	111	114	117	121	N/A
17.0302	AUTO MECHANICS	2200	70	72	73	74	75	76	279	296	305	314	323	333	209
17.0399	OTHER AUTOMOTIVE	800	10	10	10	10	10	10	7	7	7	7	7	7	-3
17.0400	AVIATION OCCUPATIONS	NO EMPLOYMENT DATA													N/A
17.0600		150 NO PROJECTED NEEDS DATA													N/A
17.0700	COMMERCIAL ART OCCUP	200	10	10	10	10	10	10	42	44	45	46	47	48	32
17.0900	COMMERCIAL PHOTOGRAPHY	NO EMPLOYMENT DATA							27	29	30	31	32	33	N/A
17.1001	CARPENTRY	1150	50	52	53	54	55	56	199	211	217	224	231	238	149
17.1002	ELECTRICITY	SEE 17.1400 FOR CURRENT EMPLOY. & PROJ. NEEDS							12	12	12	12	12	12	N/A
17.1004		270 NO PROJECTED NEEDS DATA													N/A

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EMPLOYMENT OPPORTUNITIES RELATED TO VOCATIONAL EDUCATION PROGRAMS

OE CODE	TITLE	CURRENT EMPLOYMENT	PROJECTED EXPANSION AND REPLACEMENT NEEDS						PROJECTED LABOR SUPPLY FROM VOCATIONAL-TECHNICAL EDUCATION						1976 SUPPLY MINUS NEEDS
			1976	1978	1979	1980	1981	1982	1976	1978	1979	1980	1981	1982	
17.1007	PLUMBING & PIPEFITTING	750	40	42	43	44	45	46	6	6	6	6	6	6	-34
17.1099	OTHER CONST & MAINT TRADES	1200	20	20	20	20	20	20	4	4	4	4	4	4	-16
17.1100	CUSTODIAL SERVICE	4800	410	432	444	456	468	481	34	36	37	38	39	40	-376
17.1200		1100	50	52	53	54	55	56							-50
17.1300	DRAFTING OCCUPATIONS	850	40	42	43	44	45	46	29	31	32	33	34	35	-11
17.1400	ELECTRICAL OCCUPATIONS	950	50	52	53	54	55	56	23	25	26	27	28	29	-27
17.1500	ELECTRONIC OCCUPATIONS	250	NO PROJECTED NEEDS DATA						74	78	80	82	84	87	N/A
17.1700	FOREMAN SUPV & MGMT DEVEL	NO EMPLOYMENT DATA							15	15	15	15	15	15	N/A
17.1900	GRAPHIC ARTS OCCUP	250	10	10	10	10	10	10	45	47	48	49	50	52	35
17.2100	INSTRUMENT MAINT & REPAIR	NO EMPLOYMENT DATA													N/A
17.2302	MACHINE SHOP	1250	30	30	30	30	30	30	98	104	107	110	113	116	68
17.2305		300	NO PROJECTED NEEDS DATA												N/A
17.2306	WELDING & CUTTING	1250	60	64	66	68	70	72	96	102	105	108	111	114	36
17.2399	OTHER METALWORKING OCCUP	NO EMPLOYMENT DATA							14	14	14	14	14	14	N/A
17.2400	METALLURGY OCCUP	NO EMPLOYMENT DATA							5	5	5	5	5	5	N/A
17.2602	COSMETOLOGY	800	90	94	96	98	101	104	77	81	83	85	88	91	-13
17.2802	LAW ENFORCEMENT TRAINING	1150	80	86	89	93	97	101							-80
17.2900	QUANTITY FOOD OCCUPATIONS	SEE 09.0203 FOR CURRENT EMPLOY. & PROJ. NEEDS							70	74	76	78	80	82	N/A
17.3100	SMALL ENGINE REPAIR	NO EMPLOYMENT DATA							48	50	52	54	56	58	N/A
17.3200		400	NO PROJECTED NEEDS DATA												N/A
17.3500		100	NO PROJECTED NEEDS DATA												N/A
17.3600	WOODWORKING OCCUP	50	NO PROJECTED NEEDS DATA												N/A
17.9900	OTHER TRADE & INDUSTRY	NO EMPLOYMENT DATA							285	303	312	321	331	341	N/A
	TOTAL TRADE & INDUSTRY	20770	1050	1100	1126	1153	1181	1210	1642	1735	1783	1832	1883	1938	592
	TOTAL REGION 06	61493	4600	4844	4972	5103	5240	5382	5944	6283	6461	6641	6828	7022	1374

STATE OF MICHIGAN
TABLE I REGION 07

EMPLOYMENT OPPORTUNITIES RELATED TO VOCATIONAL EDUCATION PROGRAMS

OE CODE	TITLE	CURRENT EMPLOYMENT	PROJECTED EXPANSION AND REPLACEMENT NEEDS 1976	1978	1979	1980	1981	1982	PROJECTED LABOR SUPPLY FROM VOCATIONAL-TECHNICAL EDUCATION 1976	1978	1979	1980	1981	1982	1976 SUPPLY MINUS NEEDS
01.0100	AGRICULTURAL PRODUCTION	NO EMPLOYMENT DATA							240	244	246	248	250	253	N/A
01.0200	AGRICULTURAL SUPP/SERV	NO EMPLOYMENT DATA							13	13	13	13	13	13	N/A
01.0300	AGRICULTURAL MECHANICS	NO EMPLOYMENT DATA							19	19	19	19	19	19	N/A
01.0400	AGRICULTURAL PRODUCTS	NO EMPLOYMENT DATA													N/A
01.0500	ORNAMENTAL HORTICULTURE	NO EMPLOYMENT DATA							17	17	17	17	17	17	N/A
01.0600	AGRICULTURAL RESOURCES	NO EMPLOYMENT DATA							3	3	3	3	3	3	N/A
	TOTAL AGRICULTURE								292	296	298	300	302	305	292
04.0100	ADVERTISING SERVICES	NO EMPLOYMENT DATA							14	14	14	14	14	14	N/A
04.0200	APPAREL AND ACCESSORIES	NO EMPLOYMENT DATA													N/A
04.0300	AUTOMOTIVE	NO EMPLOYMENT DATA													N/A
04.0400		350	30	32	33	34	35	36							-30
04.0600	FOOD DISTRIBUTION	NO EMPLOYMENT DATA													N/A
04.0700	FOOD SERVICES	NO EMPLOYMENT DATA													N/A
04.0800	GENERAL MERCHANDISE	3400	210	218	222	226	230	234	500	530	546	562	579	596	290
04.0900	HARDWARE, BLDG MATERIALS	NO EMPLOYMENT DATA													N/A
04.1200	INDUSTRIAL MARKETING	NO EMPLOYMENT DATA													N/A
04.1300		350	20	22	23	24	25	27							-20
04.1700		972	NO PROJECTED NEEDS DATA												N/A
04.1900		50	NO PROJECTED NEEDS DATA												N/A
	TOTAL DISTRIBUTION	5122	260	272	278	284	290	297	514	544	560	576	593	610	254
07.0101	DENTAL ASSISTANT	100	10	10	10	10	10	10	8	8	8	8	8	8	-2
07.0203		100	10	12	13	14	15	16							-10
07.0299	OTHER MEDICAL LAB TECH	SEE 07.0203 FOR CURRENT EMPLOY. & PROJ. NEEDS							8	8	8	8	8	8	N/A
07.0301	NURSING (AD)	1250	140	150	155	160	166	172	94	100	103	106	109	112	-46
07.0302	PRACTICAL NURSING (VOC)	200	30	34	36	38	40	42	50	54	56	58	60	62	20
07.0303	NURSING ASSISTANT (AIDE)	650	70	74	77	80	83	86	174	184	190	196	202	208	104
07.0501	RADIOLOGIC TECHNOLOGY	NO EMPLOYMENT DATA							77	81	83	85	88	91	N/A
07.0903		70	10	12	13	14	15	16							-10
07.0904	MEDICAL ASSISTANT	NO EMPLOYMENT DATA							3	3	3	3	3	3	N/A
07.9900	OTHER HEALTH	81	20	22	23	24	25	27	5	5	5	5	5	5	-15
	TOTAL HEALTH	2451	290	314	327	340	354	369	419	443	456	469	483	497	129
09.0201	CHILD CARE AND GUIDANCE	150	20	21	22	23	24	25	24	26	27	28	29	30	N/A
09.0202	CLOTHING MGMT, PROD & SERV	150	10	10	10	10	10	10	19	21	22	23	24	25	9
09.0203	FOOD MGMT, PROD & SERV	3050	230	236	239	242	245	248	59	63	65	67	69	71	-171
	TOTAL HOME ECONOMICS	3350	260	267	271	275	279	283	102	110	114	118	122	126	-138
14.0100	ACCTG & COMPUTING OCCUP	2000	160	168	172	176	180	184	49	52	54	56	58	60	-111
14.0201	COMPUTER & CONSOLE OPER	450	30	32	33	34	35	36	21	23	24	25	26	27	-9
14.0203		100	NO PROJECTED NEEDS DATA												N/A

STATE OF MICHIGAN
TABLE I REGION 07 (CONT)

EMPLOYMENT OPPORTUNITIES RELATED TO VOCATIONAL EDUCATION PROGRAMS

OE CODE	TITLE	CURRENT EMPLOYMENT	PROJECTED EXPANSION AND REPLACEMENT NEEDS 1976	1978	1979	1980	1981	1982	PROJECTED LABOR SUPPLY FROM VOCATIONAL-TECHNICAL EDUCATION 1976	1978	1979	1980	1981	1982	1976 SUPPLY MINUS NEEDS
14.0300	FILING, OFF MACH, CLER OCC	650	80	84	86	88	90	92	24	26	27	28	29	30	-56
14.0400		350	20	20	20	20	20	20							-20
14.0700	STENO SECRETARIAL OCCUP	2250	60	64	66	68	70	72	105	111	114	117	121	125	45
14.0800	SUPV & ADMIN MGMT OCCUP	NO EMPLOYMENT DATA							7	7	7	7	7	7	N/A
14.0900	TYPING & RELATED OCCUP	900	100	106	109	112	115	118	53	57	59	61	63	65	-47
14.9700	CLERICAL LAB	SEE 14.0700 FOR CURRENT EMPLOY. & PROJ. NEEDS							7	7	7	7	7	7	N/A
14.9800	STENO CLERICAL LAB	SEE 14.0700 FOR CURRENT EMPLOY. & PROJ. NEEDS							112	118	122	126	130	134	N/A
14.9900	OTHER OFFICE	NO EMPLOYMENT DATA							89	95	98	101	104	107	N/A
	TOTAL OFFICE	6700	450	474	486	498	510	522	467	496	512	528	545	562	17
16.0103	ARCHITECTURAL TECHNOLOGY	NO EMPLOYMENT DATA							2	2	2	2	2	2	N/A
16.0104	AUTOMOTIVE TECHNOLOGY	NO EMPLOYMENT DATA							2	2	2	2	2	2	N/A
16.0105	CHEMICAL TECHNOLOGY	NO EMPLOYMENT DATA							1	1	1	1	1	1	N/A
16.0107		200	10	10	10	10	10	10							-10
16.0108	ELECTRONIC TECHNOLOGY	SEE 16.0107 FOR CURRENT EMPLOY. & PROJ. NEEDS							5	5	5	5	5	5	N/A
16.0109	ELECTROMECHANICAL TECH	NO EMPLOYMENT DATA							3	3	3	3	3	3	N/A
16.0111		50 NO PROJECTED NEEDS DATA													N/A
16.0114	METALLURGICAL TECHNOLOGY	NO EMPLOYMENT DATA													N/A
16.0117	SCIENTIFIC DATA TECHNOLOGY	50 NO PROJECTED NEEDS DATA													N/A
16.0602		100 NO PROJECTED NEEDS DATA													N/A
16.9900	OTHER TECHNICAL	NO EMPLOYMENT DATA							8	8	8	8	8	8	N/A
	TOTAL TECHNICAL	400	10	10	10	10	10	10	21	21	21	21	21	21	11
17.0100	AIR CONDITIONING	150	10	12	13	14	15	16	2	2	2	2	2	2	-8
17.0200	APPLIANCE REPAIR	NO EMPLOYMENT DATA							3	3	3	3	3	3	N/A
17.0301	BODY AND FENDER REPAIR	NO EMPLOYMENT DATA							42	44	45	46	47	48	N/A
17.0302	AUTO MECHANICS	950	30	30	30	30	30	30	209	221	228	235	242	249	179
17.0399		800	10	10	10	10	10	10							-10
17.0400	AVIATION OCCUPATIONS	NO EMPLOYMENT DATA							10	10	10	10	10	10	N/A
17.0600	BUSINESS MACHINE MAINT	50 NO PROJECTED NEEDS DATA													N/A
17.0700	COMMERCIAL ART OCCUP	100 NO PROJECTED NEEDS DATA													N/A
17.0900	COMMERCIAL PHOTOGRAPHY	NO EMPLOYMENT DATA							3	3	3	3	3	3	N/A
17.1001	CARPENTRY	950	40	42	43	44	45	46	112	118	122	126	130	134	72
17.1004		210 NO PROJECTED NEEDS DATA													N/A
17.1007	PLUMBING & PIPEFITTING	400	20	22	23	24	25	26	3	3	3	3	3	3	-17
17.1099		850	10	10	10	10	10	10							-10
17.1100	CUSTODIAL SERVICE	2500	210	222	228	234	240	246	8	8	8	8	8	8	-202
17.1200		1000	50	52	53	54	55	56							-50
17.1300	DRAFTING OCCUPATIONS	450	20	22	23	24	25	26	46	48	49	50	52	54	26
17.1400	ELECTRICAL OCCUPATIONS	700	30	32	33	34	35	36	4	4	4	4	4	4	-26
17.1500	ELECTRONIC OCCUPATIONS	100 NO PROJECTED NEEDS DATA							41	43	44	45	46	47	N/A
17.1900	GRAPHIC ARTS OCCUP	350	20	22	23	24	25	26	36	38	39	40	41	42	16
17.2100	INSTRUMENT MAINT & REPAIR	NO EMPLOYMENT DATA							5	5	5	5	5	5	N/A
17.2302	MACHINE SHOP	1500	40	42	43	44	45	46	126	134	138	142	146	150	86

STATE OF MICHIGAN
TABLE I REGION 07 (CONT)

EMPLOYMENT OPPORTUNITIES RELATED TO VOCATIONAL EDUCATION PROGRAMS

OE CODE	TITLE	CURRENT EMPLOYMENT	PROJECTED EXPANSION AND REPLACEMENT NEEDS						PROJECTED LABOR SUPPLY FROM VOCATIONAL-TECHNICAL EDUCATION						1976 SUPPLY MINUS NEEDS
			1976	1978	1979	1980	1981	1982	1976	1978	1979	1980	1981	1982	
17.2305		150	NO PROJECTED NEEDS DATA												N/A
17.2306	WELDING & CUTTING	950	40	42	43	44	45	46	29	31	32	33	34	35	-11
17.2399	OTHER METALWORKING OCCUP	NO EMPLOYMENT DATA							6	6	6	6	6	6	N/A
17.2602	COSMETOLOGY	600	70	74	76	78	80	82	2	2	2	2	2	2	-68
17.2700	PLASTICS OCCUP	NO EMPLOYMENT DATA													N/A
17.2801	FIREMAN TRAINING	NO EMPLOYMENT DATA													N/A
17.2802	LAW ENFORCEMENT TRAINING	700	50	54	56	58	60	62	49	52	54	56	58	60	-1
17.3100	SMALL ENGINE REPAIR	NO EMPLOYMENT DATA							27	29	30	31	32	33	N/A
17.3200		200	NO PROJECTED NEEDS DATA												N/A
17.3500		100	NO PROJECTED NEEDS DATA												N/A
17.3600	WOODWORKING OCCUP	150	NO PROJECTED NEEDS DATA						11	11	11	11	11	11	N/A
7.9900	OTHER TRADE & INDUSTRY	NO EMPLOYMENT DATA							91	97	100	103	106	109	N/A
	TOTAL TRADE & INDUSTRY	13910	650	688	707	726	745	764	865	912	938	964	991	1018	215
	TOTAL REGION 07	31933	1920	2025	2079	2133	2188	2245		2822	2899	2976	3057	3139	780

STATE OF MICHIGAN
TABLE I REGION 08

EMPLOYMENT OPPORTUNITIES RELATED TO VOCATIONAL EDUCATION PROGRAMS

OE CODE	TITLE	CURRENT EMPLOYMENT	PROJECTED EXPANSION AND REPLACEMENT NEEDS 1976	1978	1979	1980	1981	1982	PROJECTED LABOR SUPPLY FROM VOCATIONAL-TECHNICAL EDUCATION 1976	1978	1979	1980	1981	1982	1976 SUPPLY MINUS NEEDS
01.0100	AGRICULTURAL PRODUCTION	NO EMPLOYMENT DATA							189	193	195	197	199	201	N/A
01.0200	AGRICULTURAL SUPP/SERV	NO EMPLOYMENT DATA							9	9	9	9	9	9	N/A
01.0300	AGRICULTURAL MECHANICS	NO EMPLOYMENT DATA							92	94	95	96	97	98	N/A
01.0500	ORNAMENTAL HORTICULTURE	NO EMPLOYMENT DATA							49	49	49	49	49	49	N/A
	TOTAL AGRICULTURE								339	345	348	351	354	357	339
04.0100	ADVERTISING SERVICES	NO EMPLOYMENT DATA							8	8	8	8	8	8	N/A
04.0400		300	30	32	33	34	35	36							-30
04.0800	GENERAL MERCHANDISE	3750	310	322	328	334	340	346	406	431	444	457	471	485	96
04.1300		500	30	34	36	38	40	42							-30
04.1700		1250	NO PROJECTED NEEDS DATA												N/A
04.1900		50	NO PROJECTED NEEDS DATA												N/A
	TOTAL DISTRIBUTION	5850	370	388	397	406	415	424	414	439	452	465	479	493	44
07.0101		130	20	22	23	24	25	26							-20
07.0203		150	20	22	23	24	25	27							-20
07.0301	NURSING (AD)	1100	120	128	132	137	142	147	81	85	88	91	94	97	-39
07.0302	PRACTICAL NURSING (VOC)	300	40	44	46	48	51	54	118	126	130	134	138	142	78
07.0303	NURSING ASSISTANT (AIDE)	1100	120	128	132	136	141	146	114	121	125	129	133	137	-6
07.0499	OTHER NURSING	SEE 07.0302 FOR CURRENT EMPLOY. & PROJ. NEEDS							27	29	30	31	32	33	N/A
07.0501	RADIOLOGIC TECHNOLOGY	100	10	10	10	10	10	10	72	76	78	80	82	84	62
07.0903		100	20	22	23	24	25	27							-20
07.9900		189	40	45	48	51	54	57							-40
	TOTAL HEALTH	3169	390	421	437	454	473	494	412	437	451	465	479	493	22
09.0201	CHILD CARE AND GUIDANCE	200	30	32	33	34	35	36	58	62	64	66	68	70	N/A
09.0202		200	20	20	20	20	20	20							-20
09.0203	FOOD MGMT, PROD & SERV	3350	270	276	279	282	285	288	24	26	27	28	29	30	-246
09.0205	INSTIT & HOME MGMT & SERV	NO EMPLOYMENT DATA							18	20	21	22	23	24	N/A
	TOTAL HOME ECONOMICS	3750	320	328	332	336	340	344	100	108	112	116	120	124	-190
14.0100	ACCTG & COMPUTING OCCUP	2300	200	210	215	220	225	230	169	179	184	190	196	202	-31
14.0201	COMPUTER & CONSOLE OPER	300	10	10	10	10	10	10	167	177	182	187	193	199	157
14.0203		150	NO PROJECTED NEEDS DATA												N/A
14.0300	FILING, OFF MACH, CLER OCC	950	100	104	106	109	112	115	155	165	170	175	180	185	55
14.0400		600	20	20	20	20	20	20							-20
14.0700	STENO SECRETARIAL OCCUP	2200	270	288	297	307	317	327	95	101	104	107	110	113	-175
14.0900	TYPING & RELATED OCCUP	850	90	94	96	98	100	103	319	339	349	359	370	381	229
14.9700	CLERICAL LAB	SEE 14.0700 FOR CURRENT EMPLOY. & PROJ. NEEDS							26	28	29	30	31	32	N/A
14.9800	STENO CLERICAL LAB	SEE 14.0700 FOR CURRENT EMPLOY. & PROJ. NEEDS							194	206	212	218	225	232	N/A
14.9900	OTHER OFFICE	NO EMPLOYMENT DATA							58	62	64	66	68	70	N/A
	TOTAL OFFICE	7350	690	726	744	764	784	805	1183	1257	1294	1332	1373	1414	493

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TABLE I REGION 08 (CONT)

EMPLOYMENT OPPORTUNITIES RELATED TO VOCATIONAL EDUCATION PROGRAMS

OE CODE	TITLE	CURRENT EMPLOYMENT	PROJECTED EXPANSION AND REPLACEMENT NEEDS 1976	1978	1979	1980	1981	1982	PROJECTED LABOR SUPPLY FROM VOCATIONAL-TECHNICAL EDUCATION 1976	1978	1979	1980	1981	1982	1976 SUPPLY MINUS NEEDS
16.0104	AUTOMOTIVE TECHNOLOGY	NO EMPLOYMENT DATA							77	81	83	85	88	91	N/A
16.0107		100	NO PROJECTED NEEDS DATA												N/A
16.0108	ELECTRONIC TECHNOLOGY	SEE 16.0107 FOR CURRENT EMPLOY. & PROJ. NEEDS							1	1	1	1	1	1	N/A
16.0109	ELECTROMECHANICAL TECH	NO EMPLOYMENT DATA							1	1	1	1	1	1	N/A
16.0110	ENVIRONMENTAL CONTROL TECHNO	NO EMPLOYMENT DATA													N/A
16.0111	INDUSTRIAL TECHNOLOGY	50	NO PROJECTED NEEDS DATA						63	67	69	71	73	75	N/A
16.0113	MECHANICAL TECHNOLOGY	NO EMPLOYMENT DATA							191	203	209	215	221	228	N/A
16.0602		150	10	10	10	10	10	10							-10
16.9900	OTHER TECHNICAL	NO EMPLOYMENT DATA							57	61	63	65	67	69	N/A
	TOTAL TECHNICAL	300	10	10	10	10	10	10	390	414	426	438	451	465	380
17.0100	AIR CONDITIONING	200	20	22	23	24	25	26	37	39	40	41	42	43	17
17.0200		250	10	10	10	10	10	10							-10
17.0301	BODY AND FENDER REPAIR	NO EMPLOYMENT DATA							120	128	132	136	140	144	N/A
17.0302	AUTO MECHANICS	950	30	30	30	30	30	30	287	305	314	323	333	343	257
17.0399	OTHER AUTOMOTIVE	550	10	10	10	10	10	10	1	1	1	1	1	1	-9
17.0400	AVIATION OCCUPATIONS	NO EMPLOYMENT DATA							3	3	3	3	3	3	N/A
17.0500	BLUEPRINT READING	NO EMPLOYMENT DATA							16	16	16	16	16	16	N/A
17.0600		50	NO PROJECTED NEEDS DATA												N/A
17.0700	COMMERCIAL ART OCCUP	50	NO PROJECTED NEEDS DATA						23	25	26	27	28	29	N/A
17.0900	COMMERCIAL PHOTOGRAPHY	NO EMPLOYMENT DATA							32	34	35	36	37	38	N/A
17.1001	CARPENTRY	1500	60	62	63	64	65	66	221	235	242	249	256	264	161
17.1002	ELECTRICITY	SEE 17.1400 FOR CURRENT EMPLOY. & PROJ. NEEDS							68	72	74	76	78	80	N/A
17.1004	MASONRY	160	NO PROJECTED NEEDS DATA						70	74	76	78	80	82	N/A
17.1007	PLUMBING & PIPEFITTING	550	30	32	33	34	35	36	4	4	4	4	4	4	-26
17.1099	OTHER CONST & MAINT TRADES	650	10	10	10	10	10	10	11	11	11	11	11	11	1
17.1100		2650	250	264	271	278	286	294							-250
17.1200		900	40	42	43	44	45	46							-40
17.1300	DRAFTING OCCUPATIONS	600	30	32	33	34	35	36	24	26	27	28	29	30	-6
17.1400	ELECTRICAL OCCUPATIONS	500	20	22	23	24	25	26	80	84	87	90	93	96	60
17.1500	ELECTRONIC OCCUPATIONS	100	NO PROJECTED NEEDS DATA						58	62	64	66	68	70	N/A
17.1900	GRAPHIC ARTS OCCUP	150	NO PROJECTED NEEDS DATA						18	20	21	22	23	24	N/A
17.2302	MACHINE SHOP	1550	50	52	53	54	55	56	108	114	117	121	125	129	58
17.2305		150	NO PROJECTED NEEDS DATA												N/A
17.2306	WELDING & CUTTING	1200	60	64	66	68	70	72	200	212	218	225	232	239	140
17.2399	OTHER METALWORKING OCCUP	NO EMPLOYMENT DATA							26	28	29	30	31	32	N/A
17.2602	COSMETOLOGY	600	70	74	76	78	80	82	41	43	44	45	46	47	-29
17.2801	FIREMAN TRAINING	NO EMPLOYMENT DATA													N/A
17.2802	LAW ENFORCEMENT TRAINING	1200	100	108	112	116	121	126	45	47	48	49	50	52	-55
17.3100	SMALL ENGINE REPAIR	NO EMPLOYMENT DATA							195	207	213	219	226	233	N/A
17.3200		200	NO PROJECTED NEEDS DATA												N/A
17.3500		50	NO PROJECTED NEEDS DATA												N/A
17.3600		50	NO PROJECTED NEEDS DATA												N/A
17.9900	OTHER TRADE & INDUSTRY	NO EMPLOYMENT DATA							32	34	35	36	37	38	N/A
	TOTAL TRADE & INDUSTRY	14810	790	834	856	878	902	926	1720	1824	1877	1932	1989	2048	930
	TOTAL REGION 08	35229	2570	2707	2776	2848	2924	3003	4558	4824	4960	5099	5245	5394	2018

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TABLE I REGION 09

EMPLOYMENT OPPORTUNITIES RELATED TO VOCATIONAL EDUCATION PROGRAMS

OE CODE	TITLE	CURRENT EMPLOYMENT	PROJECTED EXPANSION AND REPLACEMENT NEEDS 1976	1978	1979	1980	1981	1982	PROJECTED LABOR SUPPLY FROM VOCATIONAL-TECHNICAL EDUCATION 1976	1978	1979	1980	1981	1982	1976 SUPPLY MINUS NEEDS
01.0100	AGRICULTURAL PRODUCTION	NO EMPLOYMENT DATA							124	126	127	128	129	130	N/A
01.0200	AGRICULTURAL SUPP/SERV	NO EMPLOYMENT DATA													N/A
01.0300	AGRICULTURAL MECHANICS	NO EMPLOYMENT DATA							108	110	111	112	113	114	N/A
01.0500	ORNAMENTAL HORTICULTURE	NO EMPLOYMENT DATA							24	24	24	24	24	24	N/A
01.0600	AGRICULTURAL RESOURCES	NO EMPLOYMENT DATA							18	18	18	18	18	18	N/A
01.0700	FORESTRY	NO EMPLOYMENT DATA							17	17	17	17	17	17	N/A
	TOTAL AGRICULTURE								291	295	297	299	301	303	291
04.0400	FINANCE AND CREDIT	250	20	22	23	24	25	26	86	92	95	98	101	104	66
04.0600	FOOD DISTRIBUTION	SEE 09.0203 FOR CURRENT EMPLOY. & PROJ. NEEDS							23	25	26	27	28	29	N/A
04.0800	GENERAL MERCHANDISE	3400	280	290	295	300	305	310	716	759	782	805	829	854	436
04.1100	HOTEL AND LODGING	SEE 04.0800 FOR CURRENT EMPLOY. & PROJ. NEEDS							4	4	4	4	4	4	N/A
04.1200	INDUSTRIAL MARKETING	SEE 04.0800 FOR CURRENT EMPLOY. & PROJ. NEEDS							80	84	87	90	93	96	N/A
04.1300	INSURANCE	300	10	12	13	14	15	16	10	10	10	10	10	10	0
04.1700		1084	NO PROJECTED NEEDS DATA												N/A
04.1900	TRANSPORTATION	50	NO PROJECTED NEEDS DATA						27	29	30	31	32	33	N/A
	TOTAL DISTRIBUTION	5084	310	324	331	338	345	352	946	1003	1034	1065	1097	1130	636
07.0101	DENTAL ASSISTANT	170	20	22	23	24	25	26	19	21	22	23	24	25	-1
07.0203	MEDICAL LAB ASSISTING	100	10	12	13	14	15	16	36	38	39	40	41	42	26
07.0301		1100	110	118	122	126	130	135							-110
07.0302	PRACTICAL NURSING (VOC)	400	60	66	69	73	77	81	183	194	200	206	212	218	123
07.0303	NURSING ASSISTANT (AIDE)	1050	120	128	132	136	141	146	376	399	411	423	436	449	256
07.0903		100	10	12	13	14	15	16							-10
07.9900	OTHER HEALTH	189	30	34	36	38	40	42	79	83	85	88	91	94	49
	TOTAL HEALTH	3109	360	392	408	425	443	462	693	735	757	780	804	828	333
09.0201	CHILD CARE AND GUIDANCE	100	10	11	11	12	12	13	57	61	63	65	67	69	N/A
09.0202		200	10	10	10	10	10	10							-10
09.0203	FOOD MGMT, PROD & SERV	3600	290	296	299	302	305	308	77	81	83	85	88	91	-213
	TOTAL HOME ECONOMICS	3900	310	317	320	324	327	331	134	142	146	150	155	160	-166
14.0100	ACCTG & COMPUTING OCCUP	2100	190	200	205	210	215	220	118	126	130	134	138	142	-72
14.0201	COMPUTER & CONSOLE OPER	250	10	10	10	10	10	10	134	142	146	150	155	160	124
14.0203		50	NO PROJECTED NEEDS DATA												N/A
14.0300	FILING, OFF MACH, CLER OCC	700	80	84	86	88	90	92	91	97	100	103	106	109	11
14.0400	INFORMATION COMM OCCUP	400	10	10	10	10	10	10	2	2	2	2	2	2	-8
14.0700	STENO SECRETARIAL OCCUP	2650	330	352	363	375	387	399	171	181	186	192	198	204	-159
14.0800	SUPV & ADMIN MGMT OCCUP	NO EMPLOYMENT DATA							24	26	27	28	29	30	N/A
14.0900	TYPING & RELATED OCCUP	850	90	94	96	98	100	103	209	221	228	235	242	249	119
14.9700	CLERICAL LAB	SEE 14.0700 FOR CURRENT EMPLOY. & PROJ. NEEDS							76	80	82	84	87	90	N/A
14.9800	STENO CLERICAL LAB	SEE 14.0700 FOR CURRENT EMPLOY. & PROJ. NEEDS							151	161	166	171	176	181	N/A

STATE OF MICHIGAN
TABLE I REGION 09 (CONT)

EMPLOYMENT OPPORTUNITIES RELATED TO VOCATIONAL EDUCATION PROGRAMS

OE CODE	TITLE	CURRENT EMPLOYMENT	PROJECTED EXPANSION AND REPLACEMENT NEEDS 1976	1978	1979	1980	1981	1982	PROJECTED LABOR SUPPLY FROM VOCATIONAL-TECHNICAL EDUCATION 1976	1978	1979	1980	1981	1982	1976 SUPPLY MINUS NEEDS
14.9900	OTHER OFFICE	NO EMPLOYMENT DATA							97	103	106	109	112	115	N/A
	TOTAL OFFICE	7000	710	750	770	791	812	834	1073	1139	1173	1208	1245	1282	363
16.0104	AUTOMOTIVE TECHNOLOGY	NO EMPLOYMENT DATA							93	99	102	105	108	111	N/A
16.0105	CHEMICAL TECHNOLOGY	NO EMPLOYMENT DATA							33	35	36	37	38	39	N/A
16.0107		100 NO PROJECTED NEEDS DATA													N/A
16.0108	ELECTRONIC TECHNOLOGY	SEE 16.0107 FOR CURRENT EMPLOY. & PROJ. NEEDS							77	81	83	85	88	91	N/A
16.0111	INDUSTRIAL TECHNOLOGY	NO EMPLOYMENT DATA							39	41	42	43	44	45	N/A
16.0113	MECHANICAL TECHNOLOGY	NO EMPLOYMENT DATA							55	59	61	63	65	67	N/A
16.0117		50 NO PROJECTED NEEDS DATA													N/A
16.0602		150	10	10	10	10	10	10							-10
16.0603	POLICE SCIENCE	SEE 17.2802 FOR CURRENT EMPLOY. & PROJ. NEEDS							5	5	5	5	5	5	N/A
	TOTAL TECHNICAL	300	10	10	10	10	10	10	302	320	329	338	348	358	292
17.0100	AIR CONDITIONING	NO EMPLOYMENT DATA							70	74	76	78	80	82	N/A
17.0200	APPLIANCE REPAIR	NO EMPLOYMENT DATA							34	36	37	38	39	40	N/A
17.0301	BODY AND FENDER REPAIR	NO EMPLOYMENT DATA							47	49	50	52	54	56	N/A
17.0302	AUTO MECHANICS	1150	30	30	30	30	30	30	230	244	251	259	267	275	200
17.0399		700	10	10	10	10	10	10							-10
17.0400	AVIATION OCCUPATIONS	NO EMPLOYMENT DATA							12	12	12	12	12	12	N/A
17.0700		50 NO PROJECTED NEEDS DATA													N/A
17.1001	CARPENTRY	NO EMPLOYMENT DATA							218	232	239	246	253	261	N/A
17.1002	ELECTRICITY	SEE 17.1400 FOR CURRENT EMPLOY. & PROJ. NEEDS							28	30	31	32	33	34	N/A
17.1004		120 NO PROJECTED NEEDS DATA													N/A
17.1007	PLUMBING & PIPEFITTING	400	20	22	23	24	25	26	27	29	30	31	32	33	7
17.1099		650	10	10	10	10	10	10							-10
17.1100		2950	240	253	260	267	274	281							-240
17.1200	DIESEL MECHANIC	850	40	42	43	44	45	46	7	7	7	7	7	7	-33
17.1300	DRAFTING OCCUPATIONS	350	20	22	23	24	25	26	24	26	27	28	29	30	4
17.1400	ELECTRICAL OCCUPATIONS	500	20	22	23	24	25	26	6	6	6	6	6	6	-14
17.1500	ELECTRONIC OCCUPATIONS	150 NO PROJECTED NEEDS DATA							37	39	40	41	42	43	N/A
17.1900	GRAPHIC ARTS OCCUP	150 NO PROJECTED NEEDS DATA							65	69	71	73	75	77	N/A
17.2302	MACHINE SHOP	1450	30	30	30	30	30	30	159	169	174	179	184	190	129
17.2305		150 NO PROJECTED NEEDS DATA													N/A
17.2306	WELDING & CUTTING	900	40	42	43	44	45	46	255	271	279	287	296	305	215
17.2399	OTHER METALWORKING OCCUP	NO EMPLOYMENT DATA							74	78	80	82	84	87	N/A
17.2602	COSMETOLOGY	600	70	74	76	78	80	82	63	67	69	71	73	75	-7
17.2802	LAW ENFORCEMENT TRAINING	600	50	54	56	58	60	62	52	56	58	60	62	64	2
17.3100	SMALL ENGINE REPAIR	NO EMPLOYMENT DATA							160	170	175	180	185	191	N/A
17.3200		400 NO PROJECTED NEEDS DATA													N/A
17.3500		50 NO PROJECTED NEEDS DATA													N/A
17.3600		150 NO PROJECTED NEEDS DATA													N/A
17.9900	OTHER TRADE & INDUSTRY	NO EMPLOYMENT DATA							188	200	206	212	218	225	N/A
	TOTAL TRADE & INDUSTRY	12320	580	611	627	643	659	675	1756	1864	1918	1974	2031	2093	1176
	TOTAL REGION 09	31713	2280	2404	2466	2531	2596	2664	5195	5498	5654	5814	5981	6154	2925

STATE OF MICHIGAN
TABLE I REGION 10

EMPLOYMENT OPPORTUNITIES RELATED TO VOCATIONAL EDUCATION PROGRAMS

OE CODE	TITLE	CURRENT EMPLOYMENT	PROJECTED EXPANSION AND REPLACEMENT NEEDS 1976	1978	1979	1980	1981	1982	PROJECTED LABOR SUPPLY FROM VOCATIONAL-TECHNICAL EDUCATION 1976	1978	1979	1980	1981	1982	1976 SUPPLY MINUS NEEDS
01.0100	AGRICULTURAL PRODUCTION	NO EMPLOYMENT DATA							69	71	72	73	74	75	N/A
01.0300	AGRICULTURAL MECHANICS	NO EMPLOYMENT DATA							13	13	13	13	13	13	N/A
01.0500	ORNAMENTAL HORTICULTURE	NO EMPLOYMENT DATA							22	22	22	22	22	22	N/A
01.0600	AGRICULTURAL RESOURCES	NO EMPLOYMENT DATA							17	17	17	17	17	17	N/A
01.0700	FORESTRY	NO EMPLOYMENT DATA							78	80	81	82	83	84	N/A
01.9900	OTHER AGRICULTURE	NO EMPLOYMENT DATA							26	26	26	26	26	26	N/A
	TOTAL AGRICULTURE								225	229	231	233	235	237	225
04.0400	FINANCE AND CREDIT	300	20	22	23	24	25	26	58	62	64	66	68	70	38
04.0800	GENERAL MERCHANDISE	4100	340	352	358	364	371	378	251	267	275	283	291	300	-89
04.1300		450	30	34	36	38	40	42							-30
04.1700		715	NO PROJECTED NEEDS DATA												N/A
04.1900		150	NO PROJECTED NEEDS DATA												N/A
	TOTAL DISTRIBUTION	5715	390	408	417	426	436	446	309	329	339	349	359	370	-81
07.0101		90	10	10	10	10	10	10							-10
07.0203		150	20	22	23	24	25	27							-20
07.0299	OTHER MEDICAL LAB TECH	SEE 07.0203 FOR CURRENT EMPLOY. & PROJ. NEEDS							11	11	11	11	11	11	N/A
07.0301	NURSING (AD)	850	90	96	99	102	106	110	60	64	66	68	70	72	-30
07.0302	PRACTICAL NURSING (VOC)	600	90	100	105	111	117	123	171	181	186	192	198	204	81
07.0303	NURSING ASSISTANT (AIDE)	1350	150	160	165	171	177	183	194	206	212	218	225	232	44
07.0501	RADIOLOGIC TECHNOLOGY	100	10	10	10	10	10	10	80	84	87	90	93	96	70
07.0800	MENTAL HEALTH TECHNOLOGY	SEE 07.9900 FOR CURRENT EMPLOY. & PROJ. NEEDS							10	10	10	10	10	10	N/A
07.0903		100	10	12	13	14	15	16							-10
07.9900	OTHER HEALTH	108	20	22	23	24	25	27	96	102	105	108	111	114	76
	TOTAL HEALTH	3348	400	432	448	466	485	506	622	658	677	697	718	739	222
09.0201	CHILD CARE AND GUIDANCE	100	10	11	11	12	12	13	88	94	97	100	103	106	N/A
09.0202		250	20	20	20	20	20	20							-20
09.0203	FOOD MGMT, PROD & SERV	4550	340	348	352	356	360	364	138	146	150	155	160	165	-202
	TOTAL HOME ECONOMICS	4900	370	379	383	388	392	397	226	240	247	255	263	271	-134
14.0100	ACCTG & COMPUTING OCCUP	2550	210	220	225	230	236	242	152	162	167	172	177	182	-58
14.0201	COMPUTER & CONSOLE OPER	200	NO PROJECTED NEEDS DATA						27	29	30	31	32	33	N/A
14.0203	PROGRAMMERS	50	NO PROJECTED NEEDS DATA						6	6	6	6	6	6	N/A
14.0300	FILING, OFF MACH, CLER OCC	600	60	62	63	65	67	69	56	60	62	64	66	68	-4
14.0400	INFORMATION COMM OCCUP	300	10	10	10	10	10	10	1	1	1	1	1	1	-9
14.0700	STENO SECRETARIAL OCCUP	2250	50	54	56	58	60	62	246	261	269	277	285	294	196
14.0800	SUPV & ADMIN MGMT OCCUP	NO EMPLOYMENT DATA													N/A
14.0900	TYPING & RELATED OCCUP	700	80	84	86	88	90	92	86	92	95	98	101	104	6
14.9700	CLERICAL LAB	SEE 14.0700 FOR CURRENT EMPLOY. & PROJ. NEEDS							2	2	2	2	2	2	N/A
14.9800	STENO CLERICAL LAB	SEE 14.0700 FOR CURRENT EMPLOY. & PROJ. NEEDS							402	426	439	452	466	480	N/A

STATE OF MICHIGAN
TABLE I REGION 10 (CONT)

EMPLOYMENT OPPORTUNITIES RELATED TO VOCATIONAL EDUCATION PROGRAMS

OE CODE	TITLE	CURRENT EMPLOYMENT	PROJECTED EXPANSION AND REPLACEMENT NEEDS 1976	1978	1979	1980	1981	1982	PROJECTED LABOR SUPPLY FROM VOCATIONAL-TECHNICAL EDUCATION 1976	1978	1979	1980	1981	1982	1976 SUPPLY MINUS NEEDS
14.9900	OTHER OFFICE	NO EMPLOYMENT DATA							66	70	72	74	76	78	N/A
	TOTAL OFFICE	6650	410	430	440	451	463	475	1044	1109	1143	1177	1212	1248	634
16.0101	AERONAUTICAL TECHNOLOGY	NO EMPLOYMENT DATA													N/A
16.0103	ARCHITECTURAL TECHNOLOGY	NO EMPLOYMENT DATA							16	16	16	16	16	16	N/A
16.0104	AUTOMOTIVE TECHNOLOGY	NO EMPLOYMENT DATA							18	20	21	22	23	24	N/A
16.0106	CIVIL TECHNOLOGY	NO EMPLOYMENT DATA							28	30	31	32	33	34	N/A
16.0107	ELECTRICAL TECHNOLOGY	50 NO PROJECTED NEEDS DATA							97	103	106	109	112	115	N/A
16.0109	ELECTROMECHANICAL TECH	NO EMPLOYMENT DATA							16	16	16	16	16	16	N/A
16.0117	SCIENTIFIC DATA TECHNOLOGY	NO EMPLOYMENT DATA							25	27	28	29	30	31	N/A
16.0602		200	10	10	10	10	10	10							-10
16.0603	POLICE SCIENCE	SEE 17.2802 FOR CURRENT EMPLOY. & PROJ. NEEDS							34	36	37	38	39	40	N/A
16.9900	OTHER TECHNICAL	NO EMPLOYMENT DATA							44	46	47	48	49	50	N/A
16.9902	WATER & WASTE WATER TECH	NO EMPLOYMENT DATA							10	10	10	10	10	10	N/A
	TOTAL TECHNICAL	250	10	10	10	10	10	10	288	304	312	320	328	336	278
17.0200	APPLIANCE REPAIR	NO EMPLOYMENT DATA							4	4	4	4	4	4	N/A
17.0301	BODY AND FENDER REPAIR	NO EMPLOYMENT DATA							17	19	20	21	22	23	N/A
17.0302	AUTO MECHANICS	1100	30	30	30	30	30	30	494	524	540	556	573	590	464
17.0399		950	10	10	10	10	10	10							-10
17.0500	BLUEPRINT READING	NO EMPLOYMENT DATA							6	6	6	6	6	6	N/A
17.0700	COMMERCIAL ART OCCUP	NO EMPLOYMENT DATA							19	21	22	23	24	25	N/A
17.0900	COMMERCIAL PHOTOGRAPHY	NO EMPLOYMENT DATA													N/A
17.1001	CARPENTRY	NO EMPLOYMENT DATA							339	359	370	381	392	404	N/A
17.1002	ELECTRICITY	SEE 17.1400 FOR CURRENT EMPLOY. & PROJ. NEEDS							7	7	7	7	7	7	N/A
17.1004		150 NO PROJECTED NEEDS DATA													N/A
17.1007		400	20	22	23	24	25	26							-20
17.1099		850	20	20	20	20	20	20							-20
17.1100		3600	300	316	325	334	343	352							-300
17.1200	DIESEL MECHANIC	1450	60	62	63	65	67	69	24	26	27	28	29	30	-36
17.1300	DRAFTING OCCUPATIONS	100 NO PROJECTED NEEDS DATA							60	64	66	68	70	72	N/A
17.1400	ELECTRICAL OCCUPATIONS	750	40	42	43	44	45	46	213	226	233	240	247	254	173
17.1500	ELECTRONIC OCCUPATIONS	150 NO PROJECTED NEEDS DATA							58	62	64	66	68	70	N/A
17.1700	FOREMAN SUPV & MGMT DEVEL	NO EMPLOYMENT DATA							278	295	304	313	322	332	N/A
17.1900	GRAPHIC ARTS OCCUP	100 NO PROJECTED NEEDS DATA							122	130	134	138	142	146	N/A
17.2302	MACHINE SHOP	50 NO PROJECTED NEEDS DATA							109	115	118	122	126	130	N/A
17.2305	SHEET METAL	50 NO PROJECTED NEEDS DATA							2	2	2	2	2	2	N/A
17.2306	WELDING & CUTTING	1250	60	64	66	68	70	72	615	652	672	692	713	734	555
17.2602	COSMETOLOGY	550	60	64	66	68	70	72	29	31	32	33	34	35	-31
17.2802	LAW ENFORCEMENT TRAINING	750	50	54	56	58	60	62	42	44	45	46	47	48	-8
17.3000	REFRIGERATION	SEE 17.0100 FOR CURRENT EMPLOY. & PROJ. NEEDS							122	130	134	138	142	146	N/A
17.3100	SMALL ENGINE REPAIR	NO EMPLOYMENT DATA							130	138	142	146	150	155	N/A
17.3200		500 NO PROJECTED NEEDS DATA													N/A
17.3500		100 NO PROJECTED NEEDS DATA													N/A

STATE OF MICHIGAN
TABLE I REGION 10 (CONT)

EMPLOYMENT OPPORTUNITIES RELATED TO VOCATIONAL EDUCATION PROGRAMS

OE CODE	TITLE	CURRENT EMPLOYMENT	PROJECTED EXPANSION AND REPLACEMENT NEEDS 1976	1978	1979	1980	1981	1982	PROJECTED LABOR SUPPLY FROM VOCATIONAL-TECHNICAL EDUCATION 1976	1978	1979	1980	1981	1982	1976 SUPPLY MINUS NEEDS
		50 NO PROJECTED NEEDS DATA							17	19	20	21	22	23	N/A
17.3600		NO EMPLOYMENT DATA													N/A
17.9900	OTHER TRADE & INDUSTRY								2707	2874	2962	3051	3142	3236	2057
	TOTAL TRADE & INDUSTRY	12900	650	684	702	721	740	759	5421	5743	5911	6082	6257	6437	3201
	TOTAL REGION 10	33763	2230	2343	2400	2462	2526	2593							

STATE OF MICHIGAN
TABLE I REGION 11

EMPLOYMENT OPPORTUNITIES RELATED TO VOCATIONAL EDUCATION PROGRAMS

OE CODE	TITLE	CURRENT EMPLOYMENT	PROJECTED EXPANSION AND REPLACEMENT NEEDS 1976	1978	1979	1980	1981	1982	PROJECTED LABOR SUPPLY FROM VOCATIONAL-TECHNICAL EDUCATION 1976	1978	1979	1980	1981	1982	1976 SUPPLY MINUS NEEDS
01.0100	AGRICULTURAL PRODUCTION	NO EMPLOYMENT DATA							116	118	119	120	121	122	N/A
01.0300	AGRICULTURAL MECHANICS	NO EMPLOYMENT DATA							48	48	48	48	48	48	N/A
01.0500	ORNAMENTAL HORTICULTURE	NO EMPLOYMENT DATA							3	3	3	3	3	3	N/A
01.0600	AGRICULTURAL RESOURCES	NO EMPLOYMENT DATA							84	86	87	88	89	90	N/A
01.0700	FORESTRY	NO EMPLOYMENT DATA							71	73	74	75	76	77	N/A
01.9900	OTHER AGRICULTURE	NO EMPLOYMENT DATA							20	20	20	20	20	20	N/A
	TOTAL AGRICULTURE								342	348	351	354	357	360	342
04.0100	ADVERTISING SERVICES	NO EMPLOYMENT DATA							1	1	1	1	1	1	N/A
04.0200	APPAREL AND ACCESSORIES	SEE 04.0800 FOR CURRENT EMPLOY. & PROJ. NEEDS							1	1	1	1	1	1	N/A
04.0300	AUTOMOTIVE	NO EMPLOYMENT DATA													N/A
04.0400		300	20	22	23	24	25	26							-20
04.0700	FOOD SERVICES	NO EMPLOYMENT DATA													N/A
04.0800	GENERAL MERCHANDISE	3500	290	300	305	310	316	322	471	500	515	530	546	562	181
04.0900	HARDWARE, BLDG MATERIALS	SEE 04.0800 FOR CURRENT EMPLOY. & PROJ. NEEDS							1	1	1	1	1	1	N/A
04.1100	HOTEL AND LODGING	SEE 04.0800 FOR CURRENT EMPLOY. & PROJ. NEEDS							7	7	7	7	7	7	N/A
04.1200	INDUSTRIAL MARKETING	SEE 04.0800 FOR CURRENT EMPLOY. & PROJ. NEEDS							1	1	1	1	1	1	N/A
04.1300		550	30	34	36	38	40	42							-30
04.1500	PERSONAL SERVICES	SEE 04.0800 FOR CURRENT EMPLOY. & PROJ. NEEDS							2	2	2	2	2	2	N/A
04.1700		2613 NO PROJECTED NEEDS DATA													N/A
04.1800	RECREATION AND TOURISM	SEE 04.0800 FOR CURRENT EMPLOY. & PROJ. NEEDS							1	1	1	1	1	1	N/A
04.1900	TRANSPORTATION	50 NO PROJECTED NEEDS DATA													N/A
04.9900	OTHER DISTRIBUTION	SEE 04.0800 FOR CURRENT EMPLOY. & PROJ. NEEDS							2	2	2	2	2	2	N/A
	TOTAL DISTRIBUTION	7013	340	356	364	372	381	390	487	516	531	546	562	578	147
07.0101	DENTAL ASSISTANT	90	10	10	10	10	10	10	23	25	26	27	28	29	13
07.0203		100	20	22	23	24	25	27							-20
07.0301	NURSING (AD)	690	80	86	89	92	95	98	64	68	70	72	74	76	-16
07.0302	PRACTICAL NURSING (VOC)	550	80	88	93	98	103	108	110	116	119	123	127	131	30
07.0303	NURSING ASSISTANT (AIDE)	1300	140	150	155	160	165	171	139	147	151	156	161	166	-1
07.0501	RADIOLOGIC TECHNOLOGY	NO EMPLOYMENT DATA							10	10	10	10	10	10	N/A
07.0903	INHALATION THERAPY TECH	150	20	22	23	24	25	27	11	11	11	11	11	11	-9
07.0904	MEDICAL ASSISTANT	NO EMPLOYMENT DATA							16	16	16	16	16	16	N/A
07.9900	OTHER HEALTH	81	10	12	13	14	15	16	53	57	59	61	63	65	43
	TOTAL HEALTH	2961	360	390	406	422	438	457	426	450	462	476	490	504	66
09.0201	CHILD CARE AND GUIDANCE	150	20	21	22	23	24	25	28	30	31	32	33	34	N/A
09.0202	CLOTHING MGMT, PROD & SERV	250	20	20	20	20	20	20	32	34	35	36	37	38	12
09.0203	FOOD MGMT, PROD & SERV	3650	240	286	289	292	295	298	174	184	190	196	202	208	-106
09.0205	INSTIT & HOME MGMT & SERV	NO EMPLOYMENT DATA							20	22	23	24	25	26	N/A
	TOTAL HOME ECONOMICS	4050	320	327	331	335	339	343	254	270	279	288	297	306	-46

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TABLE I REGION 11 (CONT)

EMPLOYMENT OPPORTUNITIES RELATED TO VOCATIONAL EDUCATION PROGRAMS

OE CODE	TITLE	CURRENT EMPLOYMENT	PROJECTED EXPANSION AND REPLACEMENT NEEDS 1976	1978	1979	1980	1981	1982	PROJECTED LABOR SUPPLY FROM VOCATIONAL-TECHNICAL EDUCATION 1976	1978	1979	1980	1981	1982	1976 SUPPLY MINUS NEEDS
14.0100	ACCTG & COMPUTING OCCUP	2150	180	188	193	198	203	208	36	38	39	40	41	42	-144
14.0201	COMPUTER & CONSOLE OPER	50	NO PROJECTED NEEDS DATA						16	16	16	16	16	16	N/A
14.0203		50	NO PROJECTED NEEDS DATA												N/A
14.0300	FILING, OFF MACH, CLER OCC	500	50	52	53	54	55	56	65	69	71	73	75	77	15
14.0400		400	10	10	10	10	10	10							-10
14.0700	STENO SECRETARIAL OCCUP	2200	270	288	297	307	317	327	198	210	216	222	229	236	-72
14.0800	SUPV & ADMIN MGMT OCCUP	NO EMPLOYMENT DATA							48	50	52	54	56	58	N/A
14.0900	TYPING & RELATED OCCUP	550	60	64	66	68	70	72	42	44	45	46	47	48	-18
14.9800	STENO CLERICAL LAB	SEE 14.0700 FOR CURRENT EMPLOY. & PROJ. NEEDS							239	253	261	269	277	285	N/A
14.9900	OTHER OFFICE	NO EMPLOYMENT DATA							92	98	101	104	107	110	N/A
	TOTAL OFFICE	5900	570	602	619	637	655	673	736	778	801	824	848	872	166
16.0104	AUTOMOTIVE TECHNOLOGY	NO EMPLOYMENT DATA							5	5	5	5	5	5	N/A
16.0105	CHEMICAL TECHNOLOGY	NO EMPLOYMENT DATA							1	1	1	1	1	1	N/A
16.0106	CIVIL TECHNOLOGY	NO EMPLOYMENT DATA							3	3	3	3	3	3	N/A
16.0107	ELECTRICAL TECHNOLOGY	NO EMPLOYMENT DATA													N/A
16.0108	ELECTRONIC TECHNOLOGY	SEE 16.0107 FOR CURRENT EMPLOY. & PROJ. NEEDS							8	8	8	8	8	8	N/A
16.0111	INDUSTRIAL TECHNOLOGY	NO EMPLOYMENT DATA							1	1	1	1	1	1	N/A
16.0113	MECHANICAL TECHNOLOGY	NO EMPLOYMENT DATA							37	39	40	41	42	43	N/A
16.0114	METALLURGICAL TECHNOLOGY	NO EMPLOYMENT DATA													N/A
16.0601	COMMERCIAL PILOT TRAINING	NO EMPLOYMENT DATA													N/A
16.0602		150	10	10	10	10	10	10							-10
16.0603	POLICE SCIENCE	SEE 17.2802 FOR CURRENT EMPLOY. & PROJ. NEEDS							45	47	48	49	50	52	N/A
16.9900	OTHER TECHNICAL	NO EMPLOYMENT DATA							15	15	15	15	15	15	N/A
	TOTAL TECHNICAL	150	10	10	10	10	10	10	115	119	121	123	125	128	105
17.0100		100	10	12	13	14	15	16							-10
17.0301	BODY AND FENDER REPAIR	300	10	10	10	10	10	10	12	12	12	12	12	12	2
17.0302	AUTO MECHANICS	1000	30	30	30	30	30	30	363	385	397	409	421	434	333
17.0399		700	10	10	10	10	10	10							-10
17.0400	AVIATION OCCUPATIONS	NO EMPLOYMENT DATA							17	19	20	21	22	23	N/A
17.0700	COMMERCIAL ART OCCUP	NO EMPLOYMENT DATA							23	25	26	27	28	29	N/A
17.1001	CARPENTRY	NO EMPLOYMENT DATA							188	200	206	212	218	225	N/A
17.1004		200	NO PROJECTED NEEDS DATA												N/A
17.1007		400	20	22	23	24	25	26							-20
17.1099		800	10	10	10	10	10	10							-10
17.1100	CUSTODIAL SERVICE	1700	220	232	238	244	251	258	9	9	9	9	9	9	-211
17.1200		900	40	42	43	44	45	46							-40
17.1300	DRAFTING OCCUPATIONS	150	NO PROJECTED NEEDS DATA						47	49	50	52	54	56	N/A
17.1400	ELECTRICAL OCCUPATIONS	620	30	32	33	34	35	36	25	27	28	29	30	31	-5
17.1500	ELECTRONIC OCCUPATIONS	150	NO PROJECTED NEEDS DATA						84	90	93	96	99	102	N/A
17.1700	FOREMAN SUPV & MGMT DEVEL	NO EMPLOYMENT DATA													N/A
17.1900	GRAPHIC ARTS OCCUP	50	NO PROJECTED NEEDS DATA						54	58	60	62	64	66	N/A
17.2200	MARITIME OCCUP	NO EMPLOYMENT DATA							22	24	25	26	27	28	N/A

STATE OF MICHIGAN
TABLE I REGION 11 (CONT)

EMPLOYMENT OPPORTUNITIES RELATED TO VOCATIONAL EDUCATION PROGRAMS

OE CODE	TITLE	CURRENT EMPLOYMENT	PROJECTED EXPANSION AND REPLACEMENT NEEDS						PROJECTED LABOR SUPPLY FROM VOCATIONAL-TECHNICAL EDUCATION						1976 SUPPLY MINUS NEEDS
			1976	1978	1979	1980	1981	1982	1976	1978	1979	1980	1981	1982	
17.2302	MACHINE SHOP	750	10	10	10	10	10	10	100	106	109	112	115	118	90
17.2305		100	NO PROJECTED NEEDS DATA												N/A
17.2306	WELDING & CUTTING	600	30	32	33	34	35	36	100	106	109	112	115	118	70
17.2399	OTHER METALWORKING OCCUP	NO EMPLOYMENT DATA													N/A
17.2602	COSMETOLOGY	450	50	52	53	54	55	56	77	81	83	85	88	91	27
17.2802		550	40	44	46	48	50	52							-40
17.2899	OTHER PUBLIC SERVICES	NO EMPLOYMENT DATA							16	16	16	16	16	16	N/A
17.2900	QUANTITY FOOD OCCUPATIONS	SEE 09.0203 FOR CURRENT EMPLOY. & PROJ. NEEDS							6	6	6	6	6	6	N/A
17.3100	SMALL ENGINE REPAIR	NO EMPLOYMENT DATA							64	68	70	72	74	76	N/A
17.3200		500	NO PROJECTED NEEDS DATA												N/A
17.3500		50	NO PROJECTED NEEDS DATA												N/A
17.3600		50	NO PROJECTED NEEDS DATA												N/A
17.9900	OTHER TRADE & INDUSTRY	NO EMPLOYMENT DATA							44	46	47	48	49	50	N/A
	TOTAL TRADE & INDUSTRY	10120	510	538	552	566	581	596	1251	1327	1366	1406	1447	1490	741
	TOTAL REGION 11	30194	2110	2223	2282	2343	2404	2469	3611	3808	3911	4017	4126	4238	1521

TABLE 2

PROJECTED ENROLLMENTS 1979-80

CODE	TITLE	SECONDARY H.S.	SECONDARY A.C.	POSTSECONDARY	ADULT	STATE TOTAL
	TOTAL - AGRICULTURE	14,406	(2,128)	754	387	15,547
01.0100	Agricultural Production	8,622	(455)	131	52	8,805
01.0200	Agricultural Supplies/Ser.	196	---	---	---	196
01.0300	Agricultural Mechanics	1,794	(439)	8	44	1,846
01.0400	Agricultural Products	53	---	---	---	53
01.0500	Ornamental Horticulture	2,511	(1,000)	202	291	3,004
01.0600	Agricultural Resources	948	(137)	413	---	1,361
01.0700	Forestry	282	(97)	---	---	282
	TOTAL - DISTRIBUTION	20,131	(2,393)	9,535	896	30,562
04.0100	Advertising Services	177	(80)	135	27	339
04.0200	Apparel and Accessories	91	(91)	90	8	189
04.0300	Automotive	---	---	10	---	10
04.0400	Finance and Credit	---	---	418	54	472
04.0500	Floristry	---	---	---	---	---
04.0600	Food Distribution	76	---	---	19	95
04.0700	Food Services	---	---	---	69	69
04.0800	General Merchandise	19,761	(2,196)	3,729	328	23,818
04.0900	Hardware, Bldg. Materials	---	---	---	---	---
04.1000	Home Furnishings	---	---	29	---	29
04.1100	Hotel and Lodging	---	---	450	---	450
04.1200	Industrial Marketing	---	---	---	---	---
04.1300	Insurance	---	---	16	---	16
04.1400	International Trade	---	---	---	---	---
04.1500	Personal Services	---	---	3,078	104	3,182
04.1600	Petroleum	---	---	---	---	---
04.1700	Real Estate	---	---	649	134	783
04.1800	Recreation & Tourism	26	(26)	---	---	26

TABLE 2

PROJECTED ENROLLMENTS 1979-80

CODE	TITLE	SECONDARY H.S.	SECONDARY A.C.	POSTSECONDARY	ADULT	STATE TOTAL
04.1900	Transportation	---	---	691	---	691
04.2000	Retail Trade, Other	---	---	240	114	354
04.3100	Wholesale Trade, Other	---	---	---	19	19
04.9900	Other	---	---	---	20	20
	TOTAL - HEALTH	8,164	(2,301)	13,793	4,091	26,048
07.0101	Dental Assistant	561	(253)	---	165	726
07.0102	Dental Hygienist (Assoc.)	---	---	709	---	709
07.0103	Dental Laboratory Technology	---	---	142	---	142
07.0199	Dental Other	---	---	---	---	---
07.0202	Histology	---	---	---	---	---
07.0203	Medical Laboratory Assisting	53	(27)	996	77	1,126
07.0299	Medical Laboratory Other	21	(21)	215	38	274
07.0301	Nursing (Associate Degree)	---	---	5,672	98	5,770
07.0302	Practical (Voc.) Nursing	36	(36)	2,161	421	2,618
07.0303	Nursing Assistant (Aide)	4,660	(1,069)	22	1,171	5,853
07.0305	Surgical Technology	13	(13)	100	---	113
07.0399	Other	---	---	49	422	471
07.0401	Occupational Therapy	---	---	292	---	292
07.0402	Physical Therapy	---	---	59	---	59
07.0501	Radiologic Technology	---	---	432	16	448
07.0503	Nuclear Medical Technology	---	---	---	---	---
07.0599	Other	---	---	---	32	32
07.0700	Environmental Health	---	---	7	---	7
07.0800	Mental Health Technology	---	---	1,108	---	1,108
07.0903	Inhalation Therapy	---	---	708	---	708
07.0904	Medical Assistant	437	(229)	---	970	1,407
07.0906	Community Health Aide	---	---	85	337	422
07.0907	Medical Emergency Technician	---	---	369	156	525

TABLE 2

PROJECTED ENROLLMENTS 1979-80

CODE	TITLE	SECONDARY H.S.	SECONDARY A.C.	POSTSECONDARY	ADULT	STATE TOTAL
07.0909	Mortuary Science	---	---	---	---	---
07.9900	Other	2,383	(653)	667	188	3,238
	TOTAL-CONSUMER & HOMEMAKING	91,295	(5,409)	---	4,336	95,631
09.0102	Child Development	20,092*	---	---	2,532	22,624
09.0103	Clothing and Textiles	16,988*	---	---	371	17,359
09.0104	Consumer Education	11,637*	---	---	483	12,120
09.0106	Family Relations	17,926*	---	---	602	18,528
09.0107	Foods and Nutrition	25,137*	---	---	129	25,266
09.0108	Home Management	2,662*	---	---	77	2,739
09.0109	Housing & Home Furnishings	10,302*	---	---	71	10,373
09.0199	Other	6,004*	---	---	71	6,075
	* Duplicated Enrollments					
	TOTAL-OCCUPATIONAL PREP.	13,852	(3,511)	---	808	14,660
09.0201	Child Care & Guidance	3,798	(928)	---	134	3,932
09.0202	Clothing Management, Production & Services	1,609	(216)	---	153	1,762
09.0203	Food Management, Production, & Services	8,084	(2,087)	---	161	8,245
09.0204	Home Furnishings, Equipment, & Services	156	(75)	---	257	413
09.0205	Institutional & Home Management & Supporting Services	205	(205)	---	103	308
09.0299	Other	---	---	---	---	---

TABLE 2

PROJECTED ENROLLMENTS 1979-80

CODE	TITLE	SECONDARY H.S.	SECONDARY A.C.	POSTSECONDARY	ADULT	STATE TOTAL
	TOTAL - OFFICE	24,335	(4,376)	32,538	13,394	70,267
14.0100	Accounting & Computing	1,790	(512)	7,908	3,122	12,820
14.0201	Computer and Console	2,267	(1,072)	329	222	2,818
14.0203	Programmers	625	(96)	---	81	706
14.0299	Data Processing	---	---	111	700	811
14.0300	General Office, Clerical	305	---	4,031	1,583	5,919
14.0400	Information,Communications	---	---	358	82	440
14.0500	Materials Support, Trans.	11	(11)	16	---	27
14.0600	Personnel Training & Related Occupations	---	---	1,242	163	1,405
14.0700	Steno, Secretarial	9,613	(1,459)	9,175	2,789	21,577
14.0800	Supervisory & Administrative Management Occ.	---	---	8,810	84	8,894
14.0900	Typing & Related Occ.	9,724	(1,226)	558	4,568	14,850
	TOTAL - TECHNICAL EDUCATION	---	---	25,651	117	25,768
16.0101	Aeronautical Technology	---	---	9	31	40
16.0103	Architectural Technology	---	---	1,099	---	1,099
16.0104	Automotive Technology	---	---	1,416	---	1,416
16.0105	Chemical Technology	---	---	80	---	80
16.0106	Civil Technology	---	---	421	---	421
16.0107	Electrical Technology	---	---	173	---	173
16.0108	Electronic Technology	---	---	3,324	---	3,324
16.0109	Electromechanical Technology	---	---	152	---	152
16.0110	Environmental Control Tech.	---	---	917	---	917
16.0111	Industrial Technology	---	---	420	---	420

TABLE 2

PROJECTED ENROLLMENTS 1979-80

CODE	TITLE	SECONDARY H.S.	SECONDARY A.C.	POSTSECONDARY	ADULT	STATE TOTAL
16.0112	Instrumental Technology	---	---	-----	---	---
16.0113	Mechanical Technology	---	---	3,544	---	3,544
16.0114	Metallurgical Technology	---	---	86	---	86
16.0117	Scientific Data Technology	---	---	---	---	---
16.0601	Commercial Pilot Training	---	---	285	---	285
16.0602	Fire and Fire Safety Tech.	---	---	552	---	552
16.0603	Forestry Technology	---	---	67	---	67
16.0605	Police Science	---	---	2,714	86	2,800
16.9902	Water and Waste Water Tech.	---	---	26	---	26
16.9900	Other	---	---	10,366	---	10,366
	TOTAL-TRADES & INDUSTRY	49,450	(16,283)	14,496	38,146	102,092
17.0100	Air Conditioning	694	(615)	634	284	1,612
17.0200	Appliance Repair	315	(295)	31	162	508
17.0301	Body and Fender Repair	2,209	(1,168)	174	1,243	3,626
17.0302	Auto Mechanics	12,204	(2,751)	1,558	3,303	17,065
17.0399	Automotive Services,Other	---	---	---	9,015	9,015
17.0400	Aviation Occupations	112	---	377	211	700
17.0500	Blueprint Reading	---	---	---	685	685
17.0600	Business Machine Maintenance	121	---	---	---	121
17.0700	Commercial Art Occupations	700	(502)	1,868	42	2,610
17.0900	Commercial Photography Occ.	132	(22)	927	199	1,258
17.1001	Carpentry	6,447	(1,728)	52	759	7,258
17.1002	Electricity	32	(31)	8	815	855
17.1004	Masonry	---	---	25	165	190
17.1007	Plumbing and Pipefitting	13	(13)	59	453	525
17.1099	Other Construction & Maintenance Trades	71	(31)	420	342	833
17.1100	Custodial Services	611	(500)	---	65	676

TABLE 2

PROJECTED ENROLLMENTS 1979-80

CODE	TITLE	SECONDARY H.S.	SECONDARY A.C.	POSTSECONDARY	ADULT	STATE TOTAL
17.1200	Diesel Mechanic	258	(258)	92	108	458
17.1300	Drafting Occupations	2,297	(587)	582	569	3,448
17.1400	Electrical Occupations	1,042	(553)	222	691	1,955
17.1500	Electronic Occupations	3,075	(1,014)	377	705	4,157
17.1700	Foremanship Supervision	---	---	277	2,068	2,345
17.1900	Graphic Arts Occupations	3,388	(1,010)	164	677	4,229
17.2100	Instrument Maint. & Repair	61	(61)	---	67	128
17.2200	Maritime Occupations	---	---	---	---	---
17.2302	Machine Shop	4,466	(1,422)	522	1,958	6.946
17.2303	Machine Tool Operation	82	(55)	21	121	224
17.2305	Sheet Metal	---	---	---	260	260
17.2306	Welding and Cutting	4,352	(1,451)	1,249	2,258	7.859
17.2307	Tool and Die Making	---	---	---	448	448
17.2399	Other Metal Working Occ.	16	---	206	---	222
17.2400	Metallurgy Occupations	---	---	32	30	62
17.2602	Cosmetology	3,863	(960)	83	121	4,067
17.2699	Other Personal Services	---	---	---	23	23
17.2700	Plastics Occupations	87	(87)	7	129	223
17.2801	Fireman Training	---	---	56	---	56
17.2802	Law Enforcement Training	58	---	4,074	33	4,165
17.2899	Other Public Services	---	---	83	2	85
17.2900	Quantity Food Occupations	---	---	133	17	150
17.3000	Refrigeration	39	(21)	---	159	198
17.3100	Small Engine Repair	2,172	(897)	109	833	3,114
17.3200	Stationary Energy Sources Occupations	---	---	---	145	145
17.3300	Textile Production & Fabrication	---	---	---	109	109
17.3400	Leatherworking	---	---	---	2	2

TABLE 2

PROJECTED ENROLLMENTS 1979-80

CODE	TITLE	SECONDARY H.S.	SECONDARY A.C.	POSTSECONDARY	ADULT	STATE TOTAL
17.3500	Upholstering	43	(43)	---	888	931
17.3600	Woodworking Occupations	370	(105)	---	833	1,203
17.9900	Other	120	(103)	74	7,149	7,343
	GRAND TOTAL	221,633	(36,401)	96,766	62,175	380,574

TABLE 3

PROJECTED FEDERAL, STATE AND LOCAL REVENUES
BY O. E. CODE 1979-80
LEVEL - SECONDARY

	PROGRAM	FEDERAL	STATE	LOCAL	TOTAL
01.0100	Agriculture Production	$ 17,644	$2,053,610	$2,637,222	$4,708,476
01.0200	Agriculture Supplies/Services	1,130	10,512	66,095	77,737
01.0300	Agriculture Mechanics	29,542	448,046	1,240,569	1,718,157
01.0400	Agriculture Products	383	2,250	39,282	41,915
01.0500	Ornamental Horticulture	24,208	100,929	896,449	1,021,586
01.0600	Agricultural Resources	52,168	16,048	603,932	672,148
01.0700	Forestry	2,569	11,266	36,813	50,648
TOTAL AGRICULTURE		$127,644	$2,642,661	$5,520,362	$8,290,667
04.0100	Advertising Services	$ 583	$ 775	$ 9,552	$ 10,910
04.0200	Apparel and Accessories	0	110,700	401,070	511,770
04.0600	Food Distribution	776	0	14,961	15,737
04.0800	General Merchandise	4,244	1,460,502	3,912,366	5,377,112
04.1100	Hotel and Lodging	0	0	0	0
04.1800	Recreation and Tourism	0	0	0	0
TOTAL DISTRIBUTIVE EDUCATION		$ 5,603	$1,571,977	$4,337,949	$5,915,529
07.0101	Dental Assistant	$ 0	$ 35,023	$ 109,524	$ 144,547
07.0203	Medical Laboratory Assisting	1,752	0	31,781	33,533
07.0299	Other Medical Lab. Technology	0	11,394	17,563	28,957
07.0302	Practical (Vocational) Nurse	0	24,282	50,178	74,460
07.0303	Nursing Assistant (Aide)	14,642	997,074	1,885,637	2,897,353
07.0305	Surgical Technology	0	9,165	10,367	19,532
07.0904	Medical Assistant	0	18,663	78,363	97,026
07.9900	Other	0	191,208	419,789	610,997
TOTAL HEALTH		$ 16,394	$1,286,809	$2,603,202	$3,906,405

TABLE 3

	PROGRAM	FEDERAL	STATE	LOCAL	TOTAL
09.0100		$ 799,607	$ 0	$11,255,770	$12,055,377
09.0101	Comprehensive Homemaking	0	0	0	0
09.0102	Child Development	0	0	0	0
09.0103	Clothing and Textiles	0	0	0	0
09.0104	Consumer Education	0	0	0	0
09.0106	Family Relations	0	0	0	0
09.0107	Food and Nutrition	0	0	0	0
09.0108	Home Management	0	0	0	0
09.0109	Housing and Home Furnishings	0	0	0	0
09.0199	Other	0	0	0	0
TOTAL CONSUMER AND HOMEMAKING		$ 799,607	$ 0	$11,255,770	$12,055,377
09.0201	Care and Guidance of Children	$ 12,391	$ 394,003	$ 1,199,739	$ 1,606,133
09.0202	Clothing Mgmt., Prod. & Serv.	6,841	96,623	440,356	543,820
09.0203	Food Mgmt., Prod. & Serv.	47,483	2,324,594	2,513,302	4,885,379
09.0204	Home Furnishings, Eq. & Serv.	6,229	2,369	60,831	69,429
09.0205	Institution and Home Mgmt.	6,446	0	156,591	163,037
TOTAL WAGE EARNING CONSUMER & HOMEMAKING		$ 79,390	$2,817,589	$ 4,370,819	$ 7,267,798
14.0100	Accounting & Computing Occup.	$ 131	$ 228,378	$ 773,011	$ 1,001,520
14,0201	Computer & Console Operators	2,667	673,296	1,041,526	1,717,489
14.0203	Programmers	0	239,500	298,443	537,943
14.0300	Filing, Office Machines, Cler.	0	25,813	97,920	123,733
14.0400	Information Communication	0	0	0	0
14.0500	Materials Support, Trans.	0	1,728	26,356	28,084
14,0600	Personnel Training & Related	0	0	0	0
14.0700	Steno., Secretarial & Related	345	1,368,055	4,201,344	5,569,744
14.0900	Typing and Related Occup.	1,600	1,140,124	3,605,109	4,746,833
TOTAL OFFICE		4,743	3,676,894	10,043,709	13,725,346

TABLE 3

	PROGRAM	FEDERAL	STATE	LOCAL	TOTAL
17.0100	Air Conditioning	$ 15,986	$ 96,908	$ 496,811	$ 609,705
17.0200	Appliance Repair	5,932	7,728	103,988	117,648
17.0301	Body and Fender Repair	38,799	179,776	972,507	1,191,082
17.0302	Auto Mechanics	62,543	317,509	4,796,458	5,176,510
17.0400	Aviation Occupations	0	15,547	161,539	177,086
17.0600	Business Machine Maintenance	1,871	8,368	120,011	130,250
17.0700	Commercial Art Occupations	5,311	51,000	270,532	326,843
17.0900	Commercial Photography Occup.	435	19,961	92,397	112,793
17.1001	Carpentry	10,217	1,704,028	3,973,109	5,687,354
17.1002	Electricity	0	0	0	0
17.1004	Masonry	0	0	0	0
17.1007	Plumbing and Pipefitting	593	0	12,810	13,403
17.1099	Other Contr. & Maint. Trades	2,077	0	21,572	23,649
17.1100	Custodial Service	15,868	11,514	391,294	418,676
17.1200	Diesel Mechanic	1,795	14,742	62,862	79,399
17.1300	Drafting Occupations	882	431,897	79,404	1,224,183
17.1400	Electrical Occupations	138,718	234,410	655,945	1,029,073
17.1500	Electronic Occupations	115,712	295,242	3,226,958	3,637,912
17.1900	Graphic Arts Occupations	87,068	718,679	2,397,779	3,203,526
17.2302	Machine Shop	0	3,130,009	2,409,165	5,539,174
17.2305	Sheet Metal	0	0	0	0
17.2306	Welding and Cutting	36,329	1,419,235	1,608,495	3,064,059
17.2399	Other Metal Working Occup.	0	29,100	36,421	65,521
17.2602	Cosmetology	8,913	1,415,005	1,205,829	2,629,747
17.2700	Plastics Occupations	1,775	12,000	90,022	103,797
17.2802	Law Enforcement	2,271	0	27,845	30,116
17.2900	Quantity Food Occupations	0	0	0	0
17.3000	Refrigeration	136	11,668	10,182	21,986
17.3100	Small Engine Repair	42,278	144,172	1,038,103	1,224,553
17.3500	Upholstering	1,025	1,792	34,212	37,029
17.3600	Woodworking Occupations	17,125	129,206	714,204	860,535
17.9900	Other	661	0	12,421	13,082
TOTAL TRADE AND INDUSTRIAL		$ 614,320	$10,399,496	$25,734,875	$36,748,691

TABLE 3

PROJECTED FEDERAL, STATE AND LOCAL REVENUES
BY O. E. CODE 1979-80
LEVEL - AREA CENTERS

	PROGRAM	FEDERAL	STATE	LOCAL	TOTAL
01.0100	Agriculture Production	$ 0	$ 56,185	$ 152,505	$ 208,690
01.0200	Agriculture Supplies/Services	0	0	0	0
01.0300	Agriculture Mechanics	8,140	64,447	248,976	321,563
01.0400	Agriculture Products	0	0	0	0
01.0500	Ornamental Horticulture	14,519	35,321	386,790	436,630
01.0600	Agricultural Resources	2,694	2,215	83,212	88,121
01.0700	Forestry	1,892	4,128	19,198	25,218
TOTAL AGRICULTURE		$ 27,245	$ 162,296	$ 890,680	$1,080,221
04.0100	Advertising Services	$ 0	$ 775	$ 1,509	$ 2,284
04.0200	Apparel and Accessories	0	110,700	401,071	511,771
04.0800	General Merchandise	0	201,897	770,082	971,979
04.1800	Recreation & Tourism	0	0	0	0
TOTAL DISTRIBUTIVE EDUCATION		$ 0	$ 313,373	$1,172,661	$1,486,034
07.0101	Dental Assistant	$ 0	$ 1,872	$ 8,573	$ 10,445
07.0203	Medical Laboratory Assisting	1,450	0	26,131	27,581
07.0299	Histology	0	11,394	17,564	28,958
07.0302	Practical (Vocational) Nursing	0	24,282	50,179	74,461
07.0303	Nursing Assistant (Aide)	4,544	220,631	775,221	1,000,396
07.0305	Surgical Technology	0	9,166	10,368	19,534
07.0904	Medical Assistant	0	9,101	38,314	47,415
07.9900	Other	0	70,198	219,112	289,310
TOTAL HEALTH		$ 5,994	346,643	1,145,461	1,498,098
09.0100	Consumer & Homemaking	$ 44,974	$ 0	$ 987,506	$1,032,480
TOTAL CONSUMER & HOMEMAKING		$ 44,974	0	$ 987,506	$1,032,480

TABLE 3

PROGRAM	FEDERAL	STATE	LOCAL	TOTAL
09.0201 Care & Guidance of Children	$ 8,428	$ 145,705	$ 472,013	$ 626,146
09.0202 Clothing Mgmt, Prod & Serv	3,286	86,440	353,585	443,311
09.0203 Food Mgmt, Prod & Serv	19,448	490,210	1,102,085	1,611,743
09.0204 Home Furn, Equip & Serv	5,104	2,369	60,637	68,110
09.0205 Instit & Home Mgmt & Serv	6,446	0	156,591	163,037
TOTAL WAGE EARNING CONSUMER & HOMEMAKING	$ 42,712	$ 724,723	$2,498,924	$3,266,359
14.0100 Accounting & Computing Occup.	$ 0	$ 115,534	$ 463,589	$ 579,123
14.0201 Computer & Console Operators	0	392.742	538,264	931,006
14.0203 Programmers	0	63,428	73,476	136,904
14.0300 Filing, Office Machines, etc.	0	0	0	0
14.0500 Materials Support, Transp,	0	0	0	0
14.0700 Steno, Secretarial, etc.	0	311,058	1,141,704	1,452,762
14.0900 Typing & Related Occup.	0	188,909	820,127	1,009,036
TOTAL OFFICE	$ 0	$1,071,671	$3,037,159	$4,108,830
17.0100 Air Conditioning	$ 12,483	$ 80,552	$ 390,372	$ 483,407
17.0200 Appliance Repair	5,932	0	103,988	109,920
17.0301 Body & Fender Repair	17,875	81,640	553,718	653,233
17.0302 Auto Mechanics	11,340	669,658	1,437,318	2,118,316
17.0400 Aviation Occupations	0	15,547	161,539	177,086
17.0600 Business Machine Maintenance	0	8,368	34,824	43,192
17.0700 Commercial Art Occupations	4,204	22,883	170,774	197,861
17.0900 Commercial Photography Occup.	0	4,967	14,060	19,027
17.1001 Carpentry	2,679	493,722	776,944	1,273,345
17.1002 Electricity	0	0	0	0
17.1004 Masonry	0	0	0	0
17.1007 Plumbing & Pipefitting	593	0	12,810	13,403
17.1099 Other Constr. & Maint. Trades	0	0	0	0
17.1100 Custodial Service	8,823	7,411	291,325	307,559
17.1200 Diesel Mechanic	1,795	14,742	62,862	75,399
17.1300 Drafting Occupations	882	85,189	193,994	280,065
17.1400 Electrical Occupations	2,690	133,744	298,318	434,752
17.1500 Electronic Occupations	18,165	113,111	486,377	617,653
17.1900 Graphic Arts Occupations	14,901	182,780	681,126	878,807

TABLE 3

	PROGRAM	FEDERAL	STATE	LOCAL	TOTAL
17.2101	Instruments - Not Watches	$ 0	$ 0	$ 0	$ 0
17.2302	Machine Shop	0	764,508	480,905	1,245,413
17.2305	Sheet Metal	0	0	0	0
17.2306	Welding & Cutting	0	501,368	616,078	1,117,446
17.2602	Cosmetology	8,913	475,754	707,534	1,192,201
17.2700	Plastics Occupations	1,775	12,000	90,022	103,797
17.2802	Law Enforcement Training	0	0	0	0
17.3000	Refrigeration	136	11,668	10,182	21,986
17.3100	Small Engine Repair	15,120	50,982	468,177	534,279
17.3500	Upholstering	1,025	1,792	34,212	37,029
17.3600	Woodworking Occupations	1,025	109,309	48,014	158,348
17.9900	Other	0	0	0	0
TOTAL TRADE & INDUSTRIAL		$130,356	$3,841,694	$8,125,470	$12,097,520

TABLE 3

POSTSECONDARY EXPENDITURES
BY SIX DIGIT O. E. CODES
1979-80

CODE	TITLE	FEDERAL	STATE	LOCAL
01.0000	TOTAL - AGRICULTURE	$40,043	$17,215	$107,671
01.0100	Agricultural Production	1,893	813	5,090
01.0200	Agricultural Supplies/Services	52	22	145
01.0300	Agricultural Mechanics	2,489	1,069	6,691
01.0500	Ornamental Horticulture	10,769	4,630	28,951
01.0600	Agricultural Resources	9,903	4,257	26,624
01.0700	Forestry	6,601	2,839	17,748
01.9900	Other	8,332	3,582	22,418
04.0000	TOTAL - DISTRIBUTION	$192,431	$3,561,667	$1,403,578
04.0100	Advertising Services	1,155	29,903	11,785
04.0200	Apparel and Accessories	2,482	64,237	25,315
04.0300	Automotive	155	4,060	1,600
04.0400	Finance and Credit	11,106	287,226	113,191
04.0600	Food Distribution	56,744	18,089	7,128
04.0700	Food Services	1,826	47,255	18,623
04.0800	General Merchandise	33,185	861,312	339,429
04.0900	Hardware, Building Materials	128	3,322	1,310
04.1000	Home Furnishings	327	8,490	3,346
04.1100	Hotel and Lodging	5,509	142,505	56,173
04.1200	Industrial Marketing	5,253	135,992	53,541
04.1300	Insurance	6,023	155,796	61,397
04.1500	Personal Services	2,369	61,283	24,151
04.1600	Petroleum	42	1,106	437
04.1700	Real Estate	21,713	561,532	221,304
04.1800	Recreation and Tourism	56	1,476	582
04.1900	Transportation	4,582	118,508	46,703
04.9900	Other	39,649	1,059,566	471,557
07.0000	TOTAL - HEALTH	$527,578	$12,941,869	$2,852,064
07.0101	Dental Assistant	14,564	348,581	76,819
07.0102	Dental Hygienist (Associate Degree)	8,165	195,417	43,064
07.0103	Dental Laboratory Technology	1,737	41,509	9,166
07.0299	Other Medical Laboratory Technology	33,462	800,814	176,479
07.0301	Nursing (Associate Degree)	136,896	3,592,116	796,613
07.0302	Practical (Vocational) Nursing	76,416	1,828,737	403,008
07.0303	Nursing Assistant (Aide)	19,337	462,795	101,988
07.0499	Other Rehabilitation	1,516	36,309	8,001
07.0501	Radiologic Technology	7,255	173,629	38,264
07.0599	Other Radiologic	131,424	3,145,257	693,130
07.0600	Ophthalmic	4,689	112,232	24,733
07.0800	Mental Health Technology	47,836	1,144,776	252,280
07.0903	Inhalation Therapy Technology (Respiratory)	13,847	331,416	73,035
07.9900	Other	30,427	728,193	160,476

TABLE 3

POSTSECONDARY EXPENDITURES
BY SIX DIGIT O. E. CODES
1979-80

CODE	TITLE	FEDERAL	STATE	LOCAL
09.0100	TOTAL - CONSUMER AND HOMEMAKING	$37,552	$16,178	$100,971
09.0102	Child Development	28,898	12,458	77,692
09.0103	Clothing and Textiles	323	138	872
09.0106	Family Relations	540	232	1,455
09.0107	Food and Nutrition	3,300	1,418	8,874
09.0108	Home Management	1,135	488	3,055
09.0109	Housing and Home Furnishings	3,354	1,442	9,021
09.0200	TOTAL - OCCUPATIONAL PREPARATION	$54,441	$23,406	$146,364
09.0101	Care and Guidance of Children	42,265	18,172	105,704
09.0203	Food Mgmt., Production and Services	5,303	2,279	14,258
09.0204	Home Furnishings, Equipment and Services	6,872	2,954	18,477
14.0000	TOTAL - OFFICE	$487,364	$12,945,573	$5,101,650
14.0100	Accounting and Computing Occupations	130,036	3,362,923	1,325,273
14.0201	Computer and Console Operators	54,204	1,401,802	552,426
14.0300	Filing, Office Machines, Clerical Occu.	19,443	502,831	198,158
14.0400	Information Communication Occu.	10,691	276,520	108,971
14.0500	Materials Support, Transportation, etc.	2,411	62,391	24,588
14.0600	Personnel Training & Related Occu.	5,895	152,473	60,087
14.0700	Steno., Secretarial & Related Occu.	111,791	3,232,639	1,273,915
14.0800	Supervisory and Admin. Mgmt. Occu.	81,313	2,102,887	828,739
14.0900	Typing and Related Occupations	71,577	1,851,102	729,488
16.0000	TOTAL - TECHNICAL	$868,147	$8,837,976	$3,417,716
16.0103	Architectual Technology	40,732	414,599	160,330
16.0104	Automotive Technology	60,027	612,119	236,713
16.0105	Chemical Technology	3,953	40,255	15,567
16.0106	Civil Technology	37,184	378,482	146,363
16.0107	Electrical Technology	17,705	180,211	69,689
16.0108	Electronic Technology	122,865	1,250,573	483,610
16.0109	Electromechanical Technology	36,187	368,324	124,434
16.0110	Environmental Control Technology	42,948	437,550	169,205
16.0111	Industrial Technology	32,638	332,206	128,467
16.0112	Instructional Technology	664	6,772	2,618
16.0113	Mechanical Technology	87,529	890,901	344,522
16.0114	Metallurgical Technology	10,645	108,352	41,901
16.0117	Scientific Data Technology	66,755	679,529	262,755
16.0601	Commercial Pilot Training	10,645	108,352	41,901
16.0602	Fire and Fire Safety Technology	23,988	244,169	94,422
16.0605	Police Science	153,065	1,557,950	602,476
16.9902	Water and Waste Water Technology	664	6,772	2,618
16.9900	Other	119,946	1,220,852	472,117

TABLE 3

POSTSECONDARY EXPENDITURES
BY SIX DIGIT O. E. CODES
1979-80

CODE	TITLE	FEDERAL	STATE	LOCAL
17.0000	TOTAL - TRADES AND INDUSTRY	$966,154	$10,112,544	$3,910,691
17.0100	Air Conditioning	17,668	179,835	69,544
17.0200	Appliance Repair	4,804	48,908	18,913
17.0301	Body and Fender Repair	14,969	152,370	58,923
17.0302	Auto Mechanics	126,229	1,284,810	496,850
17.0399	Other Automotive	6,024	61,324	23,715
17.0400	Aviation Occupations	15,967	162,528	62,851
17.0500	Blueprint Reading	5,063	51,541	19,931
17.0600	Business Machine Maintenance	11,124	113,242	43,792
17.0700	Commercial Art Occupation	33,267	338,735	130,941
17.0900	Commercial Photography Occupations	26,612	270,881	104,752
17.1001	Carpentry	36,445	370,957	143,454
17.1002	Electricity	29,312	298,345	115,374
17.1004	Masonry	35	375	145
17.1007	Plumbing and Pipefitting	23,212	236,268	91,368
17.1099	Other Construction & Maintenance Trades	6,542	66,591	25,751
17.1100	Custodial Service	72	751	290
17.1200	Diesel Mechanic	4,952	50,413	19,496
17.1300	Drafting Occupations	28,091	286,063	110,572
17.1400	Electrical Occupations	36,667	373,214	144,325
17.1500	Electronic Occupations	45,538	463,509	179,243
17.1700	Foremanship Supervisor & Mgmt. Develop.	22,731	231,378	89,503
17.1900	Graphic Arts Occupations	42,803	435,668	168,478
17.2100	Instrument Maintenance & Repair Occu.	590	6,019	2,328
17.2200	Maritime Occupations	2,771	28,215	10,912
17.2302	Machine Shop	32,453	330,325	391,860
17.2306	Welding and Cutting	55,904	837,854	324,031
17.2399	Other Metalworking Occupations	55,001	559,823	216,489
17.2400	Metallurgy Occupations	2,391	18,434	7,128
17.2602	Cosmetology	6,542	66,591	25,751
17.2700	Plastics Occupations	2,845	28,968	11,202
17.2801	Fireman Training	1,921	19,642	7,565
17.2802	Law Enforcement Training	164,276	1,681,728	650,369
17.2899	Other Public Services	13,491	137,321	53,103
17.2900	Quantity Food Occupations	4,249	43,265	16,732
17.3000	Refrigeration	20,662	210,309	81,329
17.3100	Small Engine Repair	30,309	308,504	119,301
17.3200	Stationary Energy Sources Occupations	30,124	306,623	118,575
17.3500	Upholstering	2,587	26,335	10,184
17.3600	Woodworking Occupations	2,476	25,198	9,747

The State of Michigan is unable to provide data as to training provided through two-year programs within the university system.

TABLE 3

ADULT EXPENDITURES
BY SIX DIGIT O. E. CODES
1979-80

CODE	TITLE	FEDERAL	STATE	LOCAL
01.0000	TOTAL - AGRICULTURE	$ 3,837	$ 1,649	$10,317
01.0100	Agricultural Production	773	331	2,079
01.0200	Agricultural Supplies/Services	76	33	207
01.0300	Agricultural Mechanics	153	66	414
01.0500	Ornamental Horticulture	1,391	598	3,743
01.9900	Other	1,438	618	3,869
04.000	TOTAL - DISTRIBUTION	$53,817	$1,391,850	$548,501
04.0100	Advertising Services	767	19,849	7,821
04.0300	Automotive	117	3,061	1,205
04.0400	Finance and Credit	10,904	282,023	111,140
04.0600	Food Distribution	7,597	196,497	75,058
04.0700	Food Services	2,502	64,723	25,506
04.0800	General Merchandise	2,661	68,842	27,129
04.0900	Hardware, Building Materials	7,009	181,293	71,444
04.1100	Hotel and Lodging	901	23,333	9,195
04.1200	Industrial Marketing	1,366	35,370	13,938
04.1300	Insurance	472	12,247	4,825
04.1400	International Trade	203	5,278	2,079
04.1500	Personal Services	101	2,638	1,039
04.1600	Petroleum	905	23,439	9,236
04.1700	Real Estate	10,414	269,352	106,147
04.1800	Recreation and Tourism	3,562	92,176	36,324
04.1900	Transportation	2,485	64,302	25,339
04.9900	Other	1,831	47,408	18,682
07.0000	TOTAL - HEALTH	$12,716	$304,381	$114,218
07.0101	Dental Assistant	480	11,516	2,536
07.0299	Other Medical Laboratory Technology	314	7,551	1,663
07.0301	Nursing (Associate Degree)	945	22,657	4,991
07.0302	Practical (Vocational) Nursing	4,788	114,609	25,256
07.0303	Nursing Assistant (Aide)	1,576	37,762	8,321
07.0499	Other Rehabilitation	212	5,097	1,122
07.0501	Radiologic Technology	449	10,761	49,515
07.0599	Other Radiologic	3,754	89,887	19,805
07.0800	Mental Health Technology	188	4,530	998
09.0100	TOTAL - CONSUMER AND HOMEMAKING	$27,192	$11,689	$73,107
09.0101	Comprehensive Homemaking	633	272	1,704
09.0102	Child Development	2,428	1,044	6,531
09.0103	Clothing and Textiles	13,124	5,642	35,285
09.0104	Consumer Education	3,342	1,436	8,986
09.0106	Family Relations	3,574	1,537	9,611
09.0107	Food and Nutrition	2,259	970	6,074
09.0108	Home Management	339	145	913
09.0109	Housing and Home Furnishings	664	285	1,788
09.0199	Other	818	351	2,242

TABLE 3

ADULT EXPENDITURES
BY SIX DIGIT O. E. CODES
1979-80

CODE	TITLE	FEDERAL	STATE	LOCAL
09.0200	TOTAL - OCCUPATIONAL PREPARATION	$ 7,350	$ 3,160	$19,762
09.0201	Care and Guidance of Children	339	145	913
09.0202	Clothing Mgmt., Production & Services	3,821	1,642	10,276
09.0203	Food Mgmt., Production & Services	3,047	1,310	8,196
09.0204	Home Furnishing, Equipment & Services	138	59	373
14.0000	TOTAL - OFFICE	$40,990	$1,060,095	$418,148
14.0100	Accounting & Computing Occupations	8,107	209,695	82,636
14.0201	Computer & Console Operators	3,359	86,898	34,244
14.0300	Filing, Office Machines, Clerical Occu.	3,371	87,213	34,369
14.0400	Information Communication Occupations	174	4,540	1,788
14.0700	Steno., Secretarial & Related Occu.	7,810	201,988	79,982
14.0800	Supervisory & Admin. Mgmt. Occu.	668	17,315	6,823
14.0900	Typing and Related Occupations	17,493	452,441	178,299
16.0000	TOTAL - TECHNICAL	$8,665	$88,230	$34,119
16.0101	Aeronautical Technology	62	644	249
16.0104	Automotive Technology	1,320	13,448	5,200
16.0106	Civil Technology	876	8,929	3,453
16.0109	Electromechanical Technology	433	4,410	1,704
16.0113	Mechanical Technology	344	35,184	13,606
16.0602	Fire and Fire Safety Technology	72	752	290
16.0603	Forestry Technology	475	4,841	1,871
16.0605	Police Science	1,405	14,310	5,533
16.9900	Other	559	5,702	2,204
17.0000	TOTAL - TRADES AND INDUSTRY	$269,810	$2,829,777	$1,094,300
17.0100	Air Conditioning	4,089	41,641	16,102
17.0200	Appliance Repair	2,114	21,519	8,321
17.0301	Body and Fender Repair	3,868	39,380	15,229
17.0302	Auto Mechanics	25,107	255,550	98,823
17.0399	Other Automotive	294	3,012	1,164
17.0400	Aviation Occupations	507	5,163	1,996
17.0500	Blueprint Reading	2,526	25,716	9,944
17.0600	Business Machine Maintenance	19	213	81
17.0700	Commercial Art Occupations	2,558	26,038	10,069
17.0900	Commercial Photography Occupations	336	3,442	1,331
17.1001	Carpentry	6,151	62,659	24,215
17.1002	Electricity	9,069	92,320	35,701
17.1004	Masonry	1,922	19,581	7,572
17.1007	Plumbing and Pipefitting	9,006	91,674	35,451
17.1099	Other Construction and Maintenance Trades	9,566	97,377	37,656
17.1200	Diesel Mechanic	1,088	11,082	4,285

TABLE 3

ADULT EXPENDITURES
BY SIX DIGIT O. E. CODES
1979-80

CODE	TITLE	FEDERAL	STATE	LOCAL
17.0000	TOTAL - TRADES AND INDUSTRY (CONTD)			
17.1300	Drafting Occupations	$ 5,580	$56,812	$21,969
17.1400	Electrical Occupations	9,407	95,763	37,032
17.1500	Electronic Occupations	4,862	49,496	19,139
17.1700	Foremanship Supervisor & Mgmt. Develop.	21,533	219,181	84,758
17.1900	Graphic Arts Occupations	3,022	30,772	11,899
17.2100	Instrument Maintenance & Repair Occu.	157	1,613	623
17.2200	Maritime Occupations	19	213	81
17.2302	Machine Shop	13,404	136,436	52,760
17.2306	Welding and Cutting	15,571	158,494	61,291
17.2399	Other Metalworking Occupations	27,306	277,930	107,478
17.2400	Metallurgy Occupations	866	8,821	3,411
17.2699	Other Personal Services	40	429	165
17.2700	Plastics Occupations	1,383	14,094	5,450
17.2801	Fireman Training	8,414	85,648	33,120
17.2802	Law Enforcement Training	8,202	83,497	32,288
17.2899	Other Public Services	6,156	647,001	250,212
17.2900	Quantity Food Occupations	993	10,113	3,910
17.3000	Refrigeration	2,621	26,684	10,319
17.3100	Small Engine Repair	5,454	55,520	21,470
17.3200	Stationary Energy Sources Occu.	7,394	14,203	5.492
17.3300	Textile Production & Fabrication	697	7,100	2,745
17.3500	Upholstering	1,172	11,942	4,618
17.3600	Woodworking Occupations	4,089	41,641	16,102

All adult enrollments are served through postsecondary institutions.

Table 4

Analysis of State's Population Relating to Vocational Education Needs

Population Characteristics Related to Vocational Education Needs
(In Thousands)

Population Factor or Characteristics	Latest Available Data	1980 (Estimated)	1984 (Projected)
1. Total Michigan Population [a]	9,293	9,358	9,565
Male	4,571	4,601	4,730
Female	4,722	4,757	4,903
2. Population (15-19) [a]	946	941	915
Male	476	475	463
Female	470	466	452
3. Population (20-24) [a]	792	809	820
Male	387	397	411
Female	405	412	410
4. Total Secondary (9-12) Enrollment [b]	648	612	531
Male	330.5	N/A	N/A
Female	315.5	N/A	N/A
White	555	N/A	N/A
Black	78	N/A	N/A
Asian American	1.8	N/A	N/A
Native American	4.7	N/A	N/A
Latino	7.5	N/A	N/A
School Dropouts [c]	39	N/A	N/A
5. Total Postsecondary Enrollment [d]	486	N/A	N/A
Male	245	N/A	N/A
Female	241	N/A	N/A
6. Total Labor Force [e]	4,241	4,340	N/A
Male	2,554	2,659	N/A
Female	1,691	1,680	N/A
Employed	3,969	3,961	N/A
Male	2,394	2,440	N/A
Female	1,575	1,521	N/A
Unemployed	282 (6.6%)	378 (8.7%)	N/A
Male	160	219	N/A
Female	122	159	N/A
7. Disadvantaged Population [f]	338	N/A	N/A
Handicapped [g]	260	N/A	N/A

Table 4.(Continued)

Sources of Data

a Population Projections for Michigan to the Year 2000 and Population Projections for the Counties in Michigan, Michigan Department of Management and Budget, Information Systems Division, 1978.

b 1977 Projections of Michigan Public School Enrollment, Michigan Department of Education (MDE), April 1977, Tables II and V; School and Community Services, and Department Services, MDE.

c Michigan High School Dropout Report 1976-77, Michigan Department of Education, Research Evaluation and Assessment Services, 1977.

d Michigan Department of Education, Higher Education Management Services, 1977.

e Michigan Employment Security Commission, Research and Statistics Division, 1979.

f Governor's Comprehensive Manpower Plan (Appendix), FY 1973.

g Rehabilitation Services, Michigan Department of Education. Estimated population of employable age (16-65) in need of and could possibly benefit from rehabilitation services, 1978.

GENERAL APPLICATION SUBMITTED UNDER PART A OF TITLE I OF THE VOCATIONAL EDUCATION ACT OF 1963 AS AMENDED BY TITLE II, SECTION 106, OF PUBLIC LAW 94-482

In order to participate in programs authorized under the Vocational Education Act of 1963, as amended by Title II of the Education Amendments of 1976, P.L. 94-482, the Michigan State Board of Education hereby submits this general application. The application contains the assurances as set forth in section 106(a) of the Act, and is submitted in lieu of the general application required by section 434(b) of the General Education Provisions Act. The Michigan State Board of Education, having leadership and general supervision over public education, including vocational education, assures that:

(1) The Board will provide for methods of administration necessary for the proper and efficient administration of the Act;

(2) The Board will cooperate with the Michigan State Advisory Council on Vocational Education in carrying out its duties pursuant to section 105 and with the agencies, councils, and individuals specified in sections 107 and 108 to be involved in the formulation of the five-year State Plan and of the annual program plans and accountability reports;

(3) The Board will comply with any requests of the Commissioner for making such reports as the Commissioner may reasonably require to carry out his/her functions under this Act;

(4) Funds will be distributed to eligible recipients on the basis of annual applications which have been developed according to procedures prescribed in the Act and which describe the relationship of the proposed programs and activities to student needs and other education and training programs supported by Federal, State, and local funds;

(5) The Board shall, in considering the approval of such applications, give priority and funding support to applicants which meet the criteria set forth in section 106(A)(5)(A) and (B) of the Act;

(6) Federal funds made available under this Act will be so used so as to supplement, and to the extent practicable, increase the amount of State and local funds that would in the absence of such Federal funds be made available for the uses specified in the Act, and in no case supplant such State or local funds;

(7) The Board will make provision for such fiscal control and fund accounting procedures as may be necessary to secure proper disbursement of, and accounting for, Federal funds paid to the State;

(8) Funds received under this Act will not be used for any program of vocational education (except programs under section 135, under subpart 4 of part B and under subpart 5 of Part A) which cannot be demonstrated to prepare students for employment, be necessary to prepare individuals for successful completion of such a program, or be of significant assistance to individuals enrolled in making an informed and meaningful occupational choice as an integral part of orientation and preparation;

(9) The Board has instituted policies and procedures to insure that copies of the State Plan and annual program plan and accountability report and all statements of general policies, rules, regulations, and procedures issued by the Board and by an State agencies to which any responsibility is delegated by the State Board concerning the administration of such plan and report will be made reasonably available to the public;

(10) The funds used for purposes of section 110(a) are consistent with the State Plan submitted pursuant to section 613(a) of the Education of the Handicapped Act;

(11) The Board will cooperate with the Administrator of the National Center for Education Statistics, HEW, in supplying information and complying in its reports with the information elements and definition requirements, as specified in section 161(a) of the Act; and

(12) Indian tribal organizations receiving funds under the Commissioner's discretionary programs, under authority of section 103(a)(1)(B) of the Act, will not be excluded from participation in vocational education programs administered by the State.

Vocational education is an integral part of the Michigan education program. The Michigan State Board of Education has advocated that every youth and adult should have the opportunity to acquire employable skills; and that there should be made available to every student, exploratory educational experiences which provide for knowledge and choice of career options. In keeping with this desire, the State Board will continue to assist local educational agencies and other eligible recipients in the planning, development, implementation, and evaluation of vocational education.

STATE BOARD OF EDUCATION

By: _____
Executive Officer and State Superintendent

Date: June 12, 1979

DEPARTMENT OF EDUCATION

BY: _____
State Director of Vocational Education

Date: 6-13-79

COOPERATIVE AGREEMENT
FOR PROVIDING AND EXCHANGING DATA AND INFORMATION
BETWEEN THE
MICHIGAN DEPARTMENT OF EDUCATION
AND THE
MICHIGAN EMPLOYMENT SECURITY COMMISSION

It is hereby agreed that the Michigan Employment Security Commission will provide the Michigan Department of Education and local educational agencies with available occupational and other labor market information dealing with employment trends and opportunities, job analyses, descriptions and qualifications, testing services available, and other pertinent data as may advance the mutual interest in developing vocational education programs.

If and when special studies become necessary in order to collect information not otherwise available about occupations for which vocational education is deemed to be practicable, the Michigan Department of Education may reimburse certain costs of such labor market studies for which arrangements have been jointly agreed upon in advance.

It is further agreed that the guidance and counseling personnel of the Michigan Department of Education and local education agencies will make available to the nearest branch office of the Michigan Employment Security Commission, information (1) regarding the occupational qualifications of persons leaving or completing vocational education courses and (2) regarding vocational education programs and courses which the educational agency may offer and to which job applicants may be referred to increase their employability.

It is understood that, in the interest of uninterrupted in-school and post-school counseling, local educational agencies will assume primary responsibility for the vocational counseling of students prior to their leaving or graduation from school, with the Michigan Employment Security Commission serving as a supplementary source for special services. After a vocational education student has completed or left school, the roles will be reversed. However, at the request of a local educational agency, the Michigan Employment Security Commission may arrange to cooperatively offer counseling, testing, and placement services to vocational education students before they leave or graduate from school.

MICHIGAN EMPLOYMENT SECURITY COMMISSION

By: _____
Director

Date: 5-31-79

DEPARTMENT OF EDUCATION

By: _____
State Superintendent

Date: June 12, 1979

By: _____
Interim State Director

Date: 5-31-79

COOPERATIVE AGREEMENT BETWEEN THE BUREAU OF REHABILITATION, SPECIAL EDUCATION SERVICES AND VOCATIONAL-TECHNICAL EDUCATION SERVICES

The Michigan model for the delivery of vocational education services for handicapped persons is founded upon the premise that all handicapped individuals have available to them a free appropriate public education. Inherent in the provision of such programs and services is a basic commitment on behalf of the state agencies to provide the best set of services possible for handicapped persons by:

a. assuming primary responsibility for assisting local education agencies in the development and implementation of vocational programs and services to serve handicapped persons;

b. assuming that handicapped persons eligible for services under the Education of Handicapped Children Act of 1975 (P.L. 94-142), the Vocational Education Amendments (P.L. 94-482), the Rehabilitation Act of 1973 (P.L. 93-112), and the Michigan Mandatory Special Education Act (P.A. 198), receive all appropriate services for which they are eligible; and

c. assuring that the rights of handicapped persons are protected in compliance with Section 504 of the Rehabilitation Act of 1973.

The delivery of a continuum of appropriate programs and services to handicapped individuals requires the cooperative efforts of Special Education, Vocational Education, and the Bureau of Rehabilitation. The cornerstone of this process is an integrated service delivery system as set forth in this inter-agency agreement which is based upon a mutual commitment and philosophy of placement of handicapped persons in the least restrictive environment and a commitment to the provision of coordinated services for the handicapped. Therefore, it is hereby agreed that the Michigan Department of Education Inter-agency Vocational Planning Group, composed of the Bureau of Rehabilitation, Special Education Services, and Vocational-Technical Education Services, will continue to cooperate in the development of programs designed to provide vocational education and job placement services for the handicapped. The agencies agree to accept the following responsibilities.

I. BUREAU OF REHABILITATION (BR)

A. BR will accept the responsibility for the provision of rehabilitation services for handicapped persons ages 16 and over who have voluntarily withdrawn from school. Where students are interested in returning to school, BR will confer with the school district of jurisdiction in an attempt to have structured within the district an educational or vocational education program that would lead to completion of an appropriate course of study.

B. BR is the accountable agent for coordination of post-secondary training and placement of handicapped persons ages 18 to 25 years who have completed an approved course of study and graduated from a public school program.

II. SPECIAL EDUCATION SERVICES AREA (SESA)

A. SESA will assure that each intermediate school district has developed a written plan which specifies the content of the course of study to be provided for handicapped persons whose disability is so severe that they cannot complete the regular education program.

B. SESA will develop guidelines and provide technical assistance to public education agencies to assure:

1. special education students have been provided with prerequisite personal adjustment and prevocational skills prior to being referred to vocational education.

2. placement of handicapped persons in vocational education programs is based on the individual education plan.

C. SESA will encourage public agencies to have vocational education and vocational rehabilitation staff involved in the writing of the individual education program, wherever appropriate.

D. SESA will provide inservice training and technical assistance to special education work study coordinators making them aware of services available from the Bureau of Rehabilitation and the requirements for eligibility for such services.

III. VOCATIONAL-TECHNICAL EDUCATION SERVICES AREA (VTES)

A. VTES special needs funds may be used to support secondary special education students in adaptive vocational education programs. As funds are available, special needs funds may be used to support post-secondary vocational programs for the handicapped and special vocational education programs.

B. VTES will be responsible for funding the support services for handicapped persons in the regular vocational education program.

C. VTES will require that all special needs projects for in-school handicapped persons are reviewed by the intermediate director of special education to assure that the programs are consistent with the intermediate plan and designed to meet the specific needs of handicapped persons within the intermediate district.

D. VTES will require that all handicapped persons served in a post-secondary program have been provided with an individual written rehabilitation plan from the Bureau of Rehabilitation. It will be the responsibility of certified rehabilitation staff to verify to VTES the following:

1. That there are sufficient handicapped students enrolled in the institution to benefit from the specific training protrams identified in the plan.

2. That students have been appropriately evaluated and have been determined eligible for rehabilitation services.

It is jointly agreed that the agencies shall develop and issue an interagency memorandum to all public education agencies and rehabilitation offices specifying the procedures for cooperatively developing interagency services, the procedures for jointly serving handicapped persons, and the types of services that will be available from each agency.

It is further agreed that each agency will assign at least one staff person who will be responsible for coordinating the development of the interagency program, for providing state leadership, rendering inservice training, developing inservice training materials, and providing technical assistance to public education agencies and rehabilitation personnel.

BUREAU OF REHABILITATION

BY: Peter P. Krisiuk
Interim Associate Superintendent

Date: 1-18-79

SPECIAL EDUCATION SERVICES AREA

BY: Murray O. Battey
Director

Date: 1-18-79

VOCATIONAL-TECHNICAL EDUCATION SERVICE

BY: Arnold C. Lowrey
Interim State Director

Date: 1-18-79

STATE OF MICHIGAN

CERTIFICATE OF ATTORNEY GENERAL

I hereby certify:

1. That the State Board of Education has the authority under the laws of the State of Michigan to submit this plan and to administer or to supervise the administration of the vocational educational programs described in State Plan for Vocational Education, 1979-80.
2. The State Board of Education is the sole agency responsible for the administration of the plan.
3. All the plan provisions can be carried out by the State.
4. The Superintendent of Public Instruction has been authorized by the State Board of Education to submit the aforesaid plan and to represent the State Board of Education in all matters pertaining thereto.

5-31-79
Date

FRANK J. KELLEY
Attorney General

CERTIFICATE OF MICHIGAN STATE BOARD OF EDUCATION

I HEREBY CERTIFY that each of the agencies, councils, and individuals required in Section 104.162 of the Rules and Regulations has been afforded opportunity to be involved in the development of Michigan's Annual Program Plan for Vocational Education. Meetings with the aforementioned group were held:

Date	Time	Location	Agenda
December 12, 1978	9:30 a.m.	Lansing	Plan for the development of the Annual Program Plan.
March 21, 1979	9:30 a.m.	Lansing	Consider the first draft.
April 24, 1979	9:00 a.m.	Lansing	Consider the second draft.
May 16, 1979	9:00 a.m.	Lansing	Recommend for adoption final copy of Annual Program Plan.

There were no recommendations made by this group that were rejected by the State Board of Education.

I HEREBY CERTIFY that the attached Annual Program Plan for Vocational Education for fiscal year 1979-80 was adopted by the Michigan State Board of Education on June 5, 1979. The Annual Program Plan as submitted constitutes the basis for the operation and administration of the State's program pursuant to Sections 101-150 of Part A of Title I of the Vocational Education Act of 1963, as amended, Public Law 94-482. All information and representations contained in the Plan as of this date are accurate to the best of my knowledge and belief.

I HEREBY CERTIFY that eligible recipients within the State have been notified of their responsibility to establish local advisory councils and that eligible recipients receiving assistance under this Act have established these councils.

Michigan State Board of Education

June 12, 1979
Date

By: John W. Porter
John W. Porter
Superintendent of Public Instruction

STATE OF MICHIGAN

CERTIFICATE OF STATE PLAN REVIEW COMMITTEE

We hereby certify that the attached Annual and Long Range State Plan for Fiscal Year 1979-80 was prepared with our active participation. We recommend this Plan for adoption.

5/16/79 — Date
Arnold C. Loomis
Representative of state agency responsible for secondary vocational education.

5/16/79 — Date
John J. Shanahan
Representative of state agency responsible for community and junior colleges.

5/16/79 — Date
James H. Nelson
Representative of state agency responsible for institutions of higher education.

5/29/79 — Date
Robert L. Kinsel
Representative of state agency for Postsecondary Education Commission.

5/29/79 — Date
Louis D. Cutler
Representative of a local school board or committee.

5-16-79 — Date
Larry R. Hughes
Representative of vocational education teachers.

5-31-79 — Date
Earl E. Willcarth
Representative of local school administrators.

5-16-79 — Date
Carlo Barbieri
Representative of local school administrators.

5-16-79 — Date
John V. Inman
Representative of Employment Training Services Council.

5-16-79 — Date
Bernard S. Vandette
Representative of State Advisory Council for Vocational Education.

CERTIFICATE OF PUBLIC HEARINGS AND PUBLIC NOTIFICATION

I hereby certify that:

1. Notification of dates for public meetings and materials were provided as follows:

Date of Notification	Sent to
January 8, 1979	State Advisory Council for Vocational Education
	Manpower Services Council
Materials Provided	K-12 Superintendents
	Local Directors of Vocational Education
Cover Letter	Intermediate School District Superintendent
Meeting Schedule	Community College Deans
State Plan	Persons Interested in Vocational Education

2. Public meetings on the Annual Program Plan for Vocational Education were held as follows:

Dates	Time	Location	Attendance
February 6, 1979	1:30 p.m.	Bay City	38
February 6, 1979	1:30 p.m.	Gaylord	15
February 6, 1979	7:00 p.m.	Marquette	47
February 7, 1979	1:30 p.m.	Mt. Clemens	39
February 7, 1979	7:00 p.m.	Detroit	23
February 8, 1979	2:00 p.m.	Jackson	22
February 8, 1979	7:00 p.m.	Grand Rapids	66

3. One public hearing was announced through a mailing and news media. The meeting was held as follows:

Date	Time	Location	Attendance
February 21, 1979	1:00 p.m.	Lansing	70

Views expressed at the hearing are reflected in the Appendix of the Annual Program Plan.

June 12, 1979
Date

By: John W. Porter
Superintendent of Public Instruction

CERTIFICATE OF STATE ADVISORY COUNCIL
FOR VOCATIONAL EDUCATION

State of MICHIGAN

I hereby certify that the attached Annual and Long-Range State Plan for Vocational Education for fiscal year 1979-80 was prepared in consultation with the State Advisory Council for Vocational Education.

COMMENTS:

May 17, 1979
Date

By: Arthur D. Underwood
Chairperson, State Advisory
Council for Vocational Education

STATE OF MICHIGAN

CERTIFICATION OF FULL-TIME PERSONNEL ON SEX BIAS

I hereby certify that I have reviewed the attached Annual and Long-Range State Plan for Vocational Education for Fiscal Year 1979-80 and find it assures equal access by both men and women to vocational education.

June 1, 1979
Date

By: Sara Ann Lincoln
Sex Equity Coordinator

STATE OF MICHIGAN

WILLIAM G. MILLIKEN, Governor

DEPARTMENT OF MANAGEMENT AND BUDGET

P.O. BOX 30026, LANSING, MICHIGAN 48909

GERALD H. MILLER, Director

June 21, 1979

Mr. Robert Carpenter
Budget Officer
Department Services
Box 30008
1020 South Washington Avenue
Lansing, Michigan 48909

Re: Michigan Department of Education FY 1980 State Plan for Vocational Education in Michigan
(SP-634)

Dear Mr. Carpenter:

Pursuant to Executive Directive 1970-2, dated April 24, 1970, the Office of Intergovernmental Relations has been designated by the Governor as the State Clearinghouse to review all state plans and amendments thereto, prior to submission to a federal agency. Through the process, state agencies are given the opportunity to review and comment upon the relationship of the subject state plan to other state plans and programs and to those of affected areawide or local jurisdictions.

The Michigan Federal Grant and Aid Information Clearinghouse has completed the review process of the subject state plan as provided for under OMB Circular A-95, Revised. No comments were received regarding the plan. Therefore, you may proceed with your submission of the plan to the federal agency.

Thank you for the opportunity to review this plan.

Sincerely,

Linda N. Barnes

Linda N. Barnes, Director
Office of Intergovernmental Relations

LNB:gk

MICHIGAN
THE GREAT LAKE STATE

VIEWS EXPRESSED AT PUBLIC MEETINGS AND HEARING

Public meetings and a hearing were held on the State Plan and Accountability Report during February of 1979. The summary statements in this section represent written testimony presented at the meetings and the hearing. These statements are categorized as follows: (1) Views presented that are reflected in the 1980 Annual Program Plan; and (2) Views presented that are not included in the Plan and rationale for not including them.

VIEWS PRESENTED THAT ARE REFLECTED IN THE 1980 ANNUAL PROGRAM PLAN:

1. There is a need for student organizations for handicapped students.

   Response:

   The Michigan Department of Education strongly supports the participation of all students in vocational organizations. For fiscal year 1980, the Michigan Department of Education has planned specific activities for including handicapped persons in student organizations. These activities are not itemized in the State Plan, but do fall under Goal II-D.

2. There is a need to develop curriculum materials for persons of limited English-speaking ability.

   Response:

   Materials were developed as part of a grant during 1978-79.

3. There is a need to provide inservice (pre-service) training for teachers in the areas of mainstreaming handicapped students in vocational education.

   Response:

   The Michigan Department of Education recognizes the importance of these needs. It has communicated the need for pre-service training to several teacher educational institutions. Inservice workshops are conducted annually that focus upon these needs. (Goal II-E, Activity 16)

4. A method of evaluating the use of competency based education in the classroom should be developed. Methods to overcome obstacles to implementation should be designed.

   Response:

   A competency based education self-assessment module has been developed and validated. This module may be used by local educational agencies to determine strengths and weaknesses in the implementation of competency based education concepts. The use of competency based education will also be addressed in the local Long-Range Planning Model.

5. A longitudinal study should be developed to improve evaluation of local programs.

   Response:

   The development of a longitudinal study is an objective which has been incorporated into the State Plan under Goal II-A, Criteria 4. It is proposed that the design for the study be completed in fiscal year 1980.

6. Office Education teachers need inservice to provide their students with an understanding of computer operations.

   Response:

   Personnel development identified in Goal II-E of the State Plan involves a study to update the data processing curriculum and provide inservice of teachers in the data processing curriculums.

7. There is a need for more basic materials for the utilization of advisory committees.

   Response:

   A project has developed a series of materials which can be used by the local school district to improve the quality of the input from their advisory committees.

8. The Michigan Department of Education should provide local school districts an opportunity to develop accountability procedures for programs which would require acquisition of skills by students for continuation of funding.

   Response:

   The Michigan Department of Education is currently encouraging the development of local evaluation models which will allow an examination of student skill acquisition.

9. Comprehensive long-range planning for new programs is needed. The application for new programs asks irrelevant information. Existing programs should be more stringently evaluated based upon the success of ongoing programs.

   Response:

   The Michigan Department of Education is currently working on the finalization of comprehensive long-range planning guidelines. Procedures are being developed for the approval of existing programs on an annual basis. The application process is frequently reviewed by representatives of vocational organizations and State staff to eliminate irrelevant data.

10. Vocational teachers should be provided sabbatical leaves and financial support for periodic updating of technical skills.

Response:

The Michigan Department of Education does not have the prerogative of providing leave and financial assistance to teachers. The policy of granting leave is a function of the local district. A project is planned for the 1980 plan that will provide technical updating for teachers in existing vocational-technical education programs. Financial support will be from existing categorical State funds.

11. Federal dollars for work study have disappeared from the Annual Program Plan for Vocational Education, and presumably were transferred to Comprehensive Employment Training Act funding. Coordination of this activity should appear under Goal IV-C. A follow-up should be conducted on those Comprehensive Employment Training Act funds.

Response:

It is felt that the Comprehensive Employment Training Act funding that covered this activity was appropriate rationale for deleting work study funding from the State Plan. Follow-up is the responsibility of the Department of Labor. Efforts are being made to develop closer linkages with those who deliver services under the Comprehensive Employment Training Act.

12. There is a need to continue funding leadership for operation of Vocational Student Organizations.

Response:

The State Plan provides funding for this under Goal II-D.

13. Figures on target Native Americans in populations are obsolete.

Response:

The figures in Table I-A do not reflect the total Indian population but rather projected figures on Native Americans of school-age persons who may enroll in vocational education.

14. Inservice materials for teachers of handicapped and disadvantaged students should be developed.

Response:

The inservice projects mentioned in Goal II-E are in process now. The following materials have been developed for the handicapped:

VESEP I - Career Education for Handicapped - Adapting Vocational Education for Handicapped
VESEP II - Career Related Instruction - Cluster Guide for Consumer Homemaking

15. There should be expanded funding for vocational teacher education activities in Michigan's Upper Peninsula to better serve the needs of local school districts and vocational education programs located there.

Response:

Funding will be provided for vocational teacher education activities in the Upper Peninsula based on locally identified needs and the number of vocational teacher educators.

16. The State should continue to fund the Articulation Project at Northern Michigan University at the same level of funding as last year.

Response:

Funding for the Articulation Project at Northern Michigan University will be continued under an institutionalization grant, but will not be at the same level as the previous year. Continued funding for all previously funded projects at a level equal to the 1978-79 fiscal year is not possible due to other fiscal priorities.

17. "Special needs student" is a non-specific term and should be changed to a more specific term or phrase.

Response:

In Michigan, "special needs" is an umbrella term to include the disadvantaged, handicapped, and persons of limited English-speaking ability.

18. There should be an extension of vocational retraining options for CETA trainees through the utilization of existing secondary vocational education facilities.

Response:

Many existing secondary facilities are being used to train CETA clients. Additional efforts will be made to coordinate CETA and vocational education activities.

19. The Michigan Department of Education should continue to support more pre-vocational programs designed to help students make good vocational choices relevant to their interests and aptitudes.

Response:

The Michigan Department of Education intends to continue, next fiscal year, to support those pre-vocational/vocational articulation agreements projects designed to assist students in making vocational choices relevant to their interests and aptitudes.

20. There is a need for more accurate vocational education information and expanded guidance services.

Response:

The State Plan reflects the federally required set aside for vocational guidance functions. Examples of activities funded under this section are Michigan Occupational Information System (MOIS), Career Resource Centers, job placement, and guidance implementation models.

21. Inservice and other assistance needs to be given to school personnel for data gathering activities.

Response:

Goal IV-A provides specific help for school districts with their data gathering responsibilities. Each CEPD or consortium or CEPD's will develop a plan for funding consideration which will provide assistance to the local educational agencies to meet student and other data requirements.

22. Distributive Education Guidelines recommend new procedures which necessitate additional inservice for teachers.

Response:

Money has been budgeted for a continuance of inservice training for distributive education teachers.

23. The teacher education institutions should improve their overall educational programs for preservice and inservice vocational education teachers through interaction with employers of students from secondary and postsecondary vocational-technical programs.

Response:

Selected criteria under Objective II-E have been revised in the 1980 State Plan to allow for the planning of activities to implement the above recommendation.

24. The Michigan Department of Education should support a full-time person at each vocational teacher education institution.

Response:

The State Plan currently contains provisions for grants to vocational education institutions to evaluate and improve their preservice and inservice programs.

25. An activity should be identified in the State Plan specifically related to Displaced Homemakers and funded at a level of $500,000.

Response:

Due to fiscal limitations, an amount of $100,000 has been budgeted.

26. Incentive money should be made available to school districts to encourage the use of existing sex equity models or to create their own.

Response:

The Administrative Provisions provide for sex equity incentives under Section 2.27 and Section 17.0.

27. The State Plan should specify goals and timetables to translate policies into actions.

Response:

Goal I of the State Plan provides projections, objectives, and activities to meet sex equity in vocational programs.

28. The Vocational-Technical Education Service should include a component on sex equity as a requirement for funding all Requests for Proposals.

Response:

Sex equity is a requirement for funding of all Requests for Proposals.

29. Wherever the Vocational Education Amendments indicate allowability of sex equity concerns (the "mays"), Vocational-Technical Education Service should implement them. For example, the "may" provide child care to students, should be provided.

Response:

The Michigan Department of Education is allocating funds to meet support services for women which is a "may" in the Act. Child care services are being provided by the eligible recipient.

30. Sex equity concerns should be infused throughout the State Plan, specifically, but not limited to, Section 2.25, page 22, Criteria for Determining Relative Priority of Local Applications, and 2.27, page 25, Criteria for Determining Relative Funding of Local Applicants -- Post Secondary.

Response:

Sex equity concerns are addressed throughout Section I, Administrative Provisions, and Section II, the Annual Program Plan.

31. Encourage young people to explore non-traditional roles and occupations and eliminate sex bias in teacher/counselor attitudes and behaviors.

Response:

Activities under Objective I-A, II-E are designed to meet this recommendation.

32. Recruitment and inservice models to increase equitable representation of racial/ethnic youth in occupational programs should be developed.

Response:

The development of specific recruitment and inservice models under the Career Exploration Project, the Guidance Project, the Sex Equity Project, and Bilingual Education Project have facilitated an increase in the racial/ethnic mix in vocational education programs.

VIEWS PRESENTED AT THE PUBLIC HEARING THAT ARE NOT INCLUDED IN THE 1979-80 ANNUAL PROGRAM PLAN AND RATIONALE FOR THEIR REJECTION:

1. All professional development activities should be the responsibility of teacher educators.

   Rationale:

   The provision of professional development programs is a shared responsibility between local districts, Professional Development Centers, teacher educators, and the Michigan Department of Education. Each has their unique area of excellence which contributes to a well rounded program of professional development.

2. Recommendation that the wording of the State Plan Section 1.42-2, Occupational Experience (page 11), be changed so as to insert the words "professionally recognized" in the first sentence between the words "of" and "experience". The sentence would then read, "Shall have a minimum of two years of professionally recognized experience in the occupational area concerned or shall have a planned . . ."

   Rationale:

   The wording in the State Plan for this Section parallels the wording of the State Certification Code, R 390.1161, Rule 61(1)(c), and R 390.1163, Rule 63(1)(c). The State Plan, in this case, is a reflection of current State Board approved Administrative Rules for the State of Michigan General School Laws, and is not designed to amend or change those rules in any way. The State Plan, in this case, must conform with applicable State law.

3. Tuition free classes should be provided for vocational education students attending a community college program while completing high school.

   Rationale:

   State Board and legislative policies do not allow a student to receive two payments for the same educational program.

4. Writers of the State Plan should take into consideration the amount of paperwork involved for administrators, regardless of the school size, when they are charged with other duties in addition to vocational education.

   Rationale:

   The recommendation is not specific as to the kind of action needed to alleviate this situation. It is assumed that local districts are in the best position to determine work loads of administrators and to make appropriate assignments.

5. Consideration should be given to smaller districts with part-time vocational administrators. These part-time directors are not presently reimbursed.

Rationale:

Reimbursement is currently being given to part-time administrators providing they meet the minimum qualifications as identified in 1.41-3 of the 1980 State Plan, and if the district requests approval.

6. The concept of shared-time directors, while good in theory, is frequently impractical. Present provisions for local administration may not be meeting the needs of local districts and funding assistance for administration may not be fair and equitable.

Rationale:

We consistently use local Ad Hoc Committee to review our local administrative structure. This question is really an administrative question and not one for the State Plan.

7. The formula for determining the allocation of federal funds on a non-uniform basis was modified in 1977-78. Two factors were eliminated from the formula; unemployment rate and youth unemployment rate. The result of this modification has been to de-emphasize the "people" factor and give more weight to other factors.

Rationale:

The Vocational Education Amendments of 1976 specify the two major factors which must govern the non-uniform funding formula. These two factors include relative financial ability and relative concentration of low income. The formula was modified to reflect the basic intent of the legislation. Unemployment rate is a consideration in the criteria for determining relative priority of local applications (see Section 2.25).

8. Any regulation which the state imposes on local school districts resulting in increased costs must be considered under the "Headlee Amendment". This statement is made in reference to the increase in seat time of distributive education programs from one hour to two hours.

Rationale:

The distributive education program change from one hour to two hours is a recommended program standard of quality. The intent of this recommendation is to provide better and higher quality programming in distributive education. Further information on this item is found in the Administrative Guide for Vocational-Technical Education Programs. However, it should be noted that local districts have the option to request approval for operating their distributive education programs as a one hour class.

9. Added cost funding should be considered at the 100% rate and spread over all approved programs with acceptable placement records.

Rationale:

The 75% funding under added cost is a part of the State Aid Appropriation Act and not an option of the Department of Education.

10. Added cost (state) funds support the operational costs of Secondary vocational education programs. Legislation reduced its funding to schools from 100% to 75%. This action, plus inflation, caused a considerable increase in the local funds required to maintain vocational education programming. Further, the court order mandating vocational education centers in Detroit took up available federal funds, thus, increasing the local resource burden of local (out-state) districts.

Rationale:

State funds utilized for program operational support, other than showing as a match to federal, falls outside the purview of the State Plan. The Michigan Department of Education has requested that the added cost funding be increased so that all vocational programs receive adequate funding.

11. There should be a Standardized Home Health Aide/Nurse Aide Curriculum developed at the Secondary level.

Rationale:

There are State Minimum Performance Objectives for Secondary Nurse Aide Programs. The performance objectives with modification and additions have been used in teaching Home Health Aide Programs. In keeping with the "Career ladder," career mobility process, there are (3) Nurse Aide/LPN articulation projects presently in place. The Department of Education is willing to work with this organization in developing a common set of performance objectives for use at the Secondary level.

12. Establish a resident center in the Upper Peninsula from which a Michigan Department of Education representative could serve vocational-technical programs throughout the Upper Peninsula.

Rationale:

The Michigan Department of Education is not presently organized to provide this type of service to Michigan schools. The establishment of regional centers would be a policy matter to be determined by the State Board of Education.

13. Assistance should be provided to potential vocational education teachers in locating employment for summer months and after graduation which is directly related to their trade area, for purposes of allowing them to fulfill State certification requirements.

Rationale:

Individual teacher education institutions do provide some assistance for students in locating employment related to certification requirements.

14. The North Western area of the lower peninsula has a need to provide programs to service pleasure craft due to the extensive recreational industry.

Rationale:

It is suggested that local school districts survey job needs and submit programs for approval to the Michigan Department of Education based upon these needs. Local districts have the option and obligation to identify for funding those programs which reflect regional employment demand.

15. The development of a reliable manpower data bank to be used for placement, manpower planning and guidance will result in improved program offerings.

Rationale:

P.L. 94-482 provides for a state occupational Information Coordinating Committee which is designed to assist in the development of a reliable employment training data base. Members of the Michigan Committee include representatives of Education and Labor.

16. The recommendation suggests that vocational education serves a more primary need for initial training and has a total operating budget of $67,000,000 while CETA serves a remedial purpose and is funded $530,000,000. Priorities should be more appropriately placed on initial training rather than remediation.

Rationale:

Federal legislation dictates the priorities for funding for job training.

17. Employment demand information for Production Agriculture appears inaccurate, leaving those programs out of added cost funding in many instances.

Rationale:

There is a study being done to update employment demand in this area. The study will be completed in the Spring of 1979. This data will then be incorporated in the Occupational Demand.

18. Establish cottage industries for displaced homemakers.

Rationale:

Federal vocational education funds by law are limited to certain eligible recipients; public educational agencies and non-profit educational agencies as approved by the State Board of Education. It is the responsibility of these recipients to best determine the ways and means to meet the needs of displaced homemakers in accordance with the federal vocational education rules and regulations and the availability of funds. Direct funding of a cottage industry is not permitted under federal rules and regulations.

19. The strength of area vocational programming depends on students retaining loyalty and non-class activities at their home school. Vocational student organizations could destroy this relationship.

Rationale:

The federal law and the total philosophy of vocational student organization requires that the student organization must be an integral part of the vocational educators instructional program. Vocational student organizations must then be supported as a part of the vocational class and must take place where the vocational education instruction is conducted.

20. Develop alternatives for gifted students.

Rationale:

There has been a ccoperative effort within the Department to ascertain the types of services needed for gifted students. The use of Competency Based Education allows the teacher to identify the student who can move at an accelerated rate. Contracting with business, industry, and advanced placement in Postsecondary agencies provides the opportunity for students with special skills to reach their potential.

21. Create a state position for coordinator of Industrial Arts activities.

Rationale:

There is a commitment to providing technical assistance and constructive services to school districts for Industrial Arts programs. When filling the existing vacant Trade and Industry position, the Michigan Department of Education will attempt to select a person who has an extensive Industrial Arts background and expertise to provide coordination for Industrial Arts programs and activities.

22. Delete a number of special activities and reduce paperwork for local administrators. More and more vocational education funds are being spent for special tasks and ancillary services rather than basic support. I suggest that the trend be reversed.

Rationale:

Federal legislation requires that 20% of the basic grant be used for support services. These and other requirements of the legislation may or may not require additional paperwork and documentation.

23. Section 1.47, Instructional Personnel, should be revised by changing the requirements for vocational certification from "two years of recognized work experience" to "two years of professionally recognized work experience".

Rationale:

The current wording of this Section conforms to the Administrative Rules approved by the State Board of Education under the State of Michigan General School Laws.

24. Vocational teachers should be required to update their technical skills at periodic intervals to maintain their certification status.

Rationale:

The State Plan, in this instance, conforms to the Administrative Rules for Teacher Certification approved by the State Board of Education.

25. Increase the number of female administrators at the State and local level. Increase the number of adult role models: teachers in non-traditional occupational areas.

Rationale:

The Department of Education has an Affirmative Action Plan intended to address this problem. This matter will be addressed at the local level with assistance provided by the Sex Equity coordinator.

26. The State statute should be rewritten to permit private colleges and universities to be a part of the State Plan for Vocational Education.

Rationale:

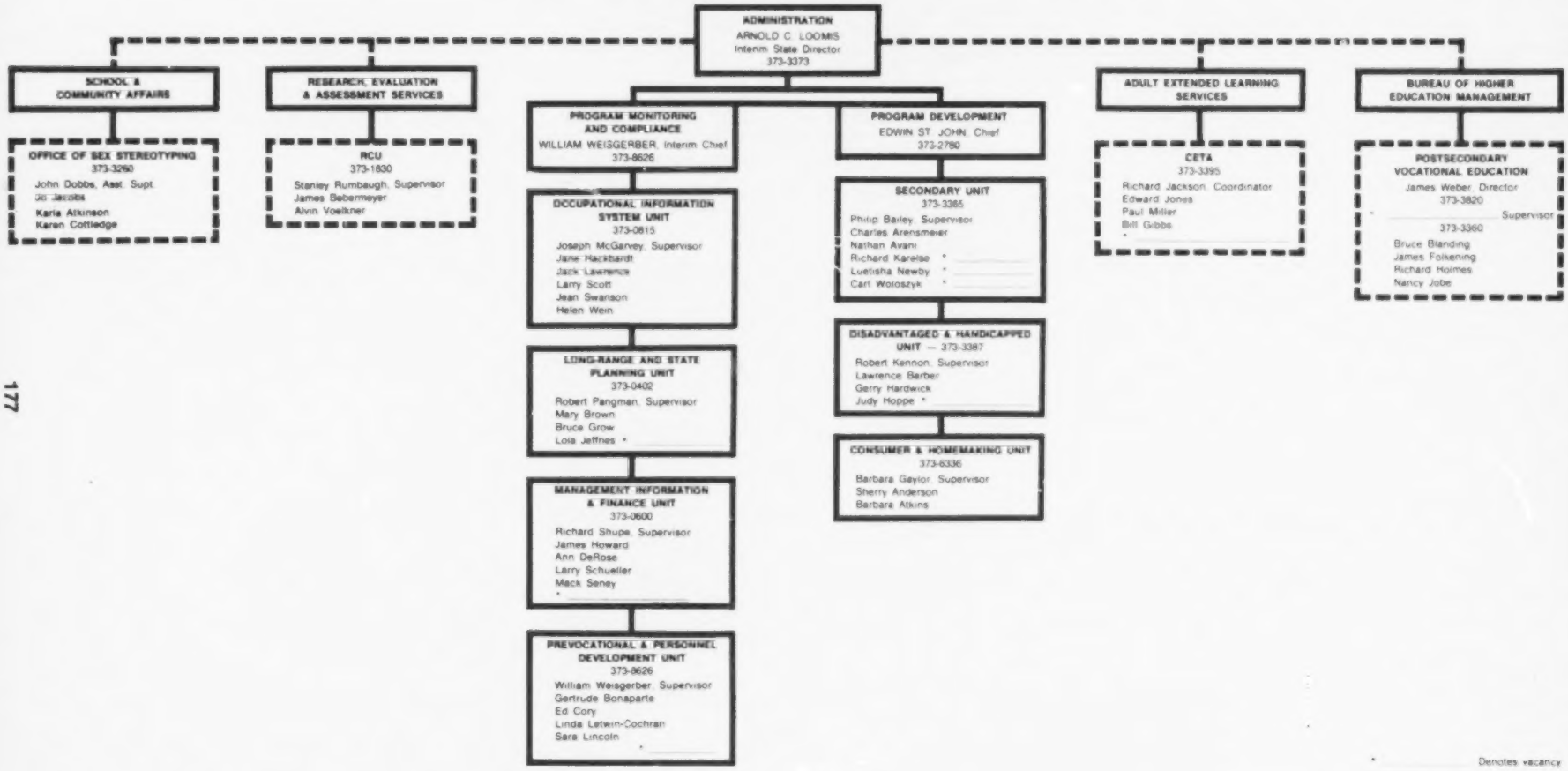
Chapter 11 of the Community College Act of 1966 defines the responsibilities of community college programs as follows: "A community college means an educational institution providing, primarily for all persons above the twelfth grade age level and primarily for those within commuting distance, collegiate and non-collegiate level education including area vocational-technical education programs designed to prepare the following individuals for useful employment".

These excerpts from the Community College Act seem to give the community colleges responsibility for all Postsecondary students.

There are also problems such as duplication of effort, competition for limited Postsecondary vocational funds, and identifying priorities for funds which would be difficult to resolve if private occupational schools were to receive federal vocational funds through direct funding.

If specific training is not offered in a particular geographic area, the community college may contract with a private agency when that training can be given at an equivalent or lesser cost or when the private training institution can provide equipment or services not available in public institutions.

VOCATIONAL-TECHNICAL EDUCATION SERVICE



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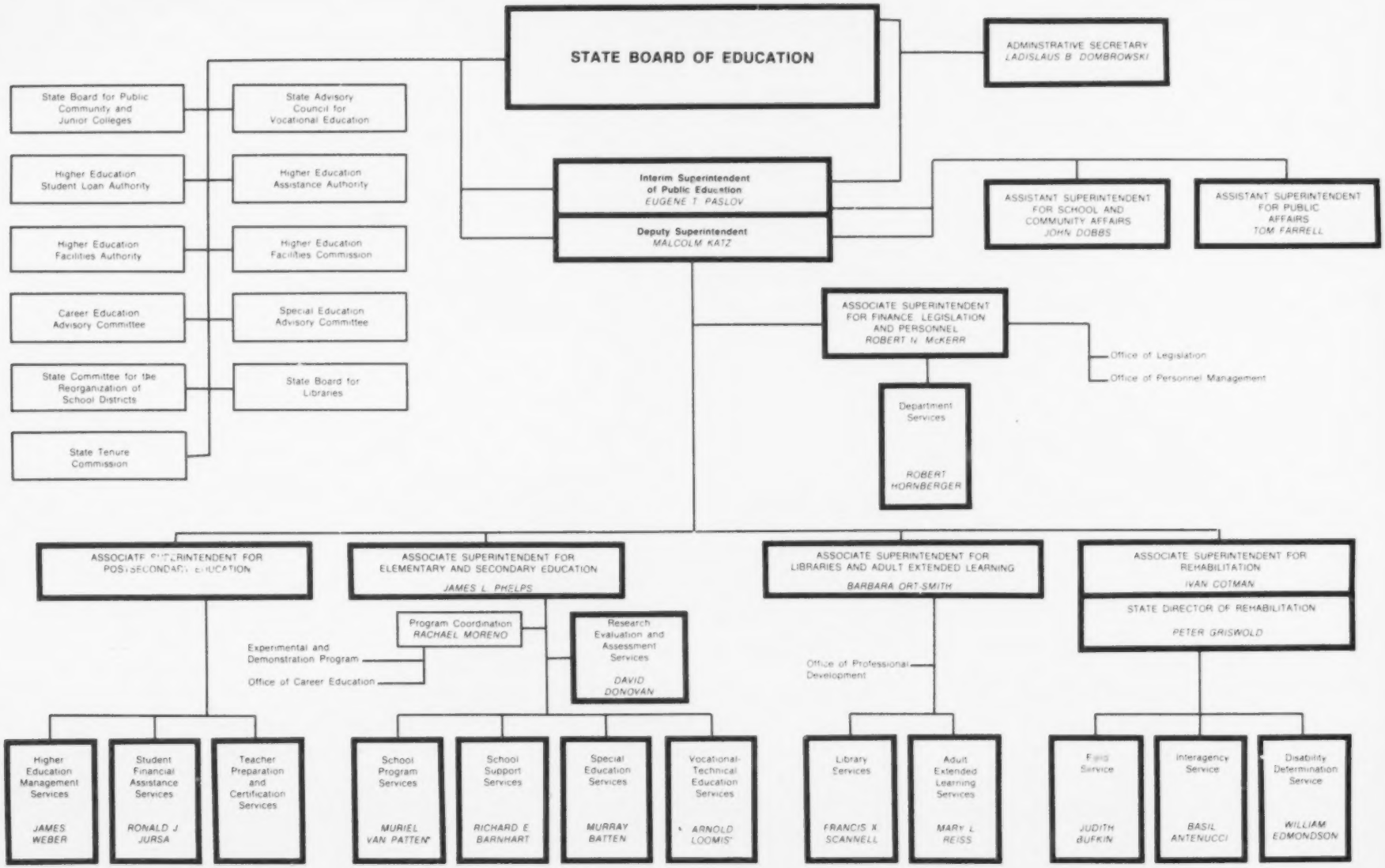
MICHIGAN DEPARTMENT OF EDUCATION



*Acting

September, 1979

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MICHIGAN STATE BOARD OF EDUCATION

STATEMENT OF ASSURANCE OF COMPLIANCE WITH FEDERAL LAW

The Michigan State Board of Education hereby agrees that it will comply with Federal laws prohibiting discrimination and with all requirements imposed by or pursuant to regulations of the U.S. Department of Health, Education and Welfare. Therefore, it shall be the policy of the Michigan State Board of Education that no person on the basis of race, color, religion, national origin or ancestry, age, sex, or marital status shall be discriminated against, excluded from participation in, be denied the benefits of, or be otherwise subjected to discrimination under any federally funded program or activity for which the Michigan State Board of Education is responsible or for which it receives federal financial assistance from the Department of Health, Education and Welfare. This policy of non-discrimination shall also apply to otherwise qualified handicapped individuals.